


3-1-1978

### Irish H & V News Incorporating Zone

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# IRISH H&V NEWS + ZONE

Incorporating ZONE: Environmental Engineering in Ireland.  
MARCH 1978 VOL. 17 NO. 4

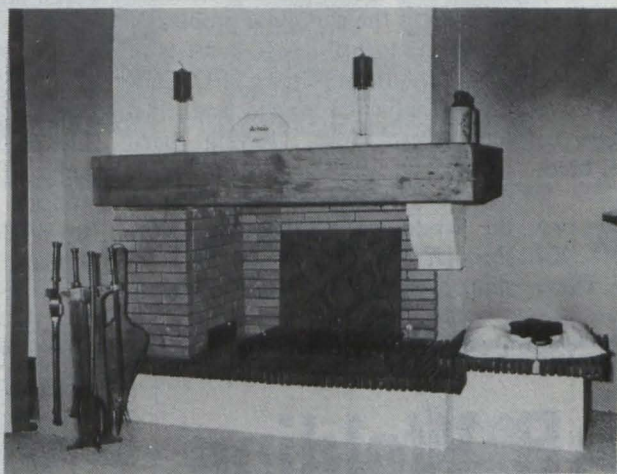
## French Fireplaces Now in Ireland

At a reception held in Dublin, recently, Mulvaney Enterprises Ltd, Dun Laoghaire, announced the official opening of its new showroom at 320 St Michael's Mall, Dun Laoghaire Centre and presented a preview of its range of Richard Le Droff fireplaces. This is the first time that these exclusive hand-built fireplaces are available in Ireland.

In styles, which include rustic, provincial, contemporary, colonial, classic or traditional, Niall Mulvaney,

the Irish Maitre Atrier or Master Chimney Mason, will compose a fireplace to suit requirements and decor and will erect the fireplace according to clients specifications. Le Droff fireplaces are nothing less than genuine in that tradition forbids the use of synthetic materials.

The beams used in certain models are kiln-dried solid oak, the stone is genuine quarry stone and all carving and engraving, while roughed out by machine for uniformity, is hand finished. The fireplace may be incorporated into the building



Pictured above is Artois — one of the many beautifully hand crafted fireplaces on view at the Richard Le Droff showroom 320 St Michael's Mall, Dun Laoghaire Shopping Centre.

of new constructions, be one. Prices range from £250 installed in a finished build- to £1500 and expert advice ing or can replace an old is available at all times.

## Cork Gas

After showing early signs of good pre-tax profits at the interim stage Cork Gas Company report a second half setback.

When their halfway figures were announced the company reported pre-tax profits of £69,644, a rise of 47.13% on £47,335 recorded at the interim stage of 1976. But the final figures for the year ended December 31 shows that the company's second half profits amounted to £35,852 which represents a decline of 34.51% on the £54,747 recorded in the second six months the previous year.

The pre-tax profits for the year finally show that the overall pre-tax profits, for 1977 were £105,496 compared to £102,082 for 1976, which amounts to 3.3% improvement.

## Two Agencies for C & F

C&F Ltd, who exhibited at the Brighter Homes & DIY Exhibition for the first time this month, have been appointed as agents by Oliver Toms Catering Equipment Ltd and by Elpan ApS of Denmark.

Oliver Toms have recently introduced a new Master Chef 600 series Gastronorm modular cooking system which can be started with one or two 600 x 600mm units and later extended to cater from 20 to 300 covers plus.

Elpan's electric panel heating system can be installed at skirting level, dispensing with traditional skirting boards. Enamelled metal modules plug into each other and incorporate automatic temperature controls which it is claimed will enable mean room temperature to be lowered by approximately 3 degrees C and save about 15% in heating bills.

## New Wavin Factory

Wavin Pipes Ltd, are to open a second plant for the manufacture of diversified products at Ardee, Co. Louth. The new facility, Wavin Ferdia Ltd, will initially employ 30 people and produce three new plastic products — hurleys, polypropylene tomato trays and boxes.

## MINISTER URGES SUPPORT FOR BUY IRISH CAMPAIGN

This year's Brighter Homes and Do-it-Yourself Exhibition was officially opened in the RDS, Ballsbridge by Mrs Marie Geoghegan-Quinn, TD., Minister of State at the Department of Industry and Commerce.

Presented on an extensive scale the Exhibition occupied the Main Hall, Industries Hall and Balconies. Sponsored by the Irish Hardware Association and organised by John

Palmer (Exhibitions) Ltd, there was a very wide range of exhibits ranging from the normal domestic requirement to various ways in which to provide domestic heating.

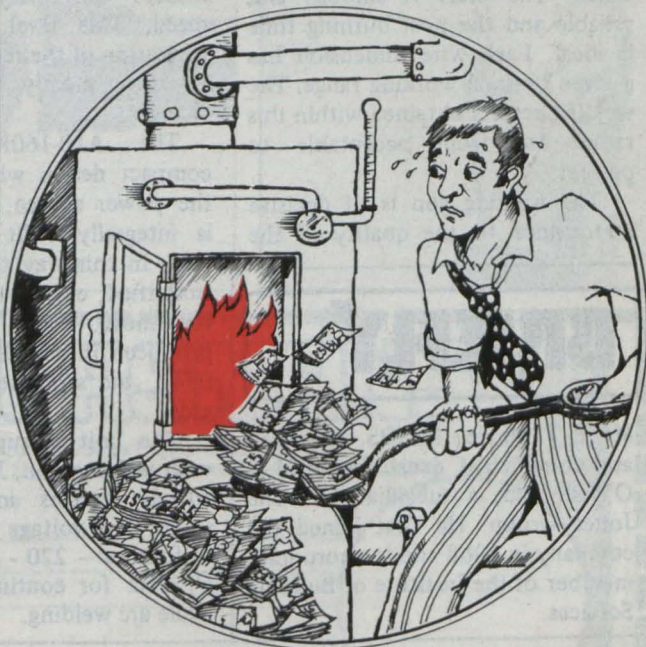
During the course of her speech Mrs Marie Geoghegan-Quinn urged those taking part in the exhibition to be more Irish orientated in their purchases and to consider the buying of Irish marketed goods rather than imports.

The Minister said that in 1977 the total bill for imports was over £3,000 million and while she was prepared to admit that there were certain products that needed to be imported it was her contention that at least £1,000-million of this figure represented goods that could and should be bought from Irish manufacturers. Now was the time according to the Minister for Irish industry to fight back and win back lost business and gain a reasonable share of the home market.

The Minister had a word for the consumer attending the exhibition when she stated that they should look with an open mind at all Irish products which are available on the market and should access them on their merits.

The Minister was taken on a tour of the exhibition by the organisers and

**You'll never get as much out of an old boiler...**



**...as you will out of a new Clyde/De Dietrich**

High efficiency and low initial cost are the features of the new Clyde/De Dietrich range of pressurised boilers. Manufactured of special cast iron the De Dietrich comply with the most stringent European standards and are specified by leading consultants everywhere. They are available ex-stock in outputs of up to 1,160 kW. Guaranteed fuel savings will quickly offset initial outlay — write for further details.



## Hevac Special

This special HEVAC issue contains a comprehensive pull-out supplement on the exhibition which is being held at the National Exhibition Centre, Birmingham, from 3 to 7 April. Besides the Irish companies actually participating at the show, a large number of visitors will be attending from this country. The supplement has been prepared with this in mind and may be used as a convenient guide to stands with a particular Irish relevance.





# First Factory of its Type in Ireland

Ireland's first circular FLOCOR E plastics media filters are to be built by Kildare County Council at the Upper Liffey Valley Regional Sewerage Treatment Works. The works, to be located near Naas, will serve Naas and then Newbridge, Sallins and Clane. Other towns may also eventually be served by the works. Much housing development is planned for these locations and to cater for this the works have been designed and planned to be capable of extension to three times the initial size.

A feature of the works are two circular filters packed with ICI FLOCOR E plastic medium. These

are the "first FLOCOR E circular high rate filters" to be built in Ireland — the Consulting Engineers, Nicholas O'Dwyer Son & Partners, Carrick House, Dundrum, are responsible for the novel design which, as well as being new to Ireland, is also the most effective solution to the particular problem.

The biological design consists of primary settlement tanks, FLOCOR filters, activated sludge and final settlement tanks. Having been pumped at the inlet to the works to the primary settlement tanks, the waste water flows by gravity through the rest of the plant, so that pumping costs are minimal.

After primary settlement, the BOD concentration will be 160 milligrammes/litre in 10,000 cubic metres/day.

The two circular filters packed with a total of 626 cubic metres of FLOCOR E ordered plastics media which are to be built initially, will reduce the BOD by 60% to 64 milligrammes/litre. The FLOCOR filters are each 13 metres diameter, having a packed depth of 2.4 metres. After further treatment over activated sludge, the plant is designed to produce consistently better than Royal Commission standard final effluent. It is intended to mechanically de-water the sludge on the

site and ICI's experience has shown that a mixture of FLOCOR sludge and activated sludge has excellent de-waterability.

Construction work has started on the site. The contract for the civil engineering construction has been awarded to P J White Construction Ltd of Navan, Co Meath. Contracts have also been awarded to PWS (Ireland) Ltd, Celbridge, Co Kildare, for the supply of the activated sludge plant and equipment and to William Jones Ltd, England, for the supply of the filter pressing equipment for sludge de-watering.

## New ESAB Welding Unit

Welding Products Ltd, of Mountjoy Street, Dublin agents in Ireland for the complete range of ESAB equipment, have announced the introduction of the A10 160K and A10 250K machines which are now proving very successful in fabrication of light gauge material in Ireland.

The A10-160K features a new single control system, which gives correct voltage and welding current relative to feed speed, at all times. The start is smooth and reliable and the post burning time is ideal. Each wire dimension has a given optimal working range. The welding results obtained within this range are from acceptable to perfect.

The welding gun is of decisive importance to the quality of the

weld. The new A10-160K uses the PSB 200 welding gun which is sturdy in construction, has good flexibility and is easy to use. The design is based on the PSB 150/200 welding gun which has proved its superiority on thousands of welding sites all over the world.

A steady wire feed speed, i.e. the speed of the wire through the welding gun, is vital to top quality welding results. The wire feed units of the A10-160K include a lever type spring mechanism which, when depressed, applies the correct pressure to the wire and thereby ensures absolutely steady feed speed. This level also facilitates separation of the feed rollers, which in turn greatly facilitates wire changes.

The A10-160K is also of compact design which means that the power source, i.e. the rectifier, is integrally built with the feed unit. In this way the equipment is simplified, easy to handle and easy to move. The machines are produced in accordance with VDE 0542, the strictest existing standards.

The unit is supplied complete with welding gun, 3 m length hose, wheels, castors and gas cylinder stand. The voltage connections are as follows:— 220 - 380 - 415 - 500 V/50Hz for continuous, spot and cycle arc welding.



The ESAB A10-160K now available from Welding Products.

## BRIEFLY

Mr P J Doyle, MCIBS, has been appointed chief executive of H A O'Neill Ltd, a subsidiary of The Jones Group. He first joined the company in 1968 and is a corporate member of the Institute of Building Services.

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## Ecomax Appoint Sheffield

Ecomax (UK) Ltd has appointed Sheffield Insulations in Dublin as its sole distributor of mineral wool insulation products in Eire.

The Ecomax products, which are made in Sweden by the giant Swedish Rockwool Company, provide thermal and acoustic insulation and also give very considerable fire protection.

Their pre-formed pipe sections are used for insulating heating pipes and for the insulation of pipes in processing plants where temperature control and fire safety are essential. Decorative acoustic panels are used extensively to provide attractive and quiet working conditions in schools, offices and restaurants.

The Ecomax roof board gives thermal insulation and fire protection as well as providing a strong stable base for weather proofing on flat metal roofs. Other Ecomax products are employed on ships and oil platforms where their additional fire protection properties are very important.

Ecomax believe that there is a very large potential market for mineral wool insulation in Eire, particularly in respect of energy conserving thermal insulation and in noise control. The full range of products will be available through Sheffield Insulations of 1-11 Upper Grand Canal Street, Dublin 4, (Tel: 689099).



Pat Mercer, BE, MEngSc, has been appointed Operations Manager of Flogas Ltd. The company was formed last October to engage in the liquefied petroleum gas industry. Mr. Mercer was previously Technical Manager and Head of the Industrial Sales Division with Calor Kosangas.



John Sheehan has joined Flogas as Sales Executive from Appliance-line Ltd, a gas appliance importing company. He held a similar position.

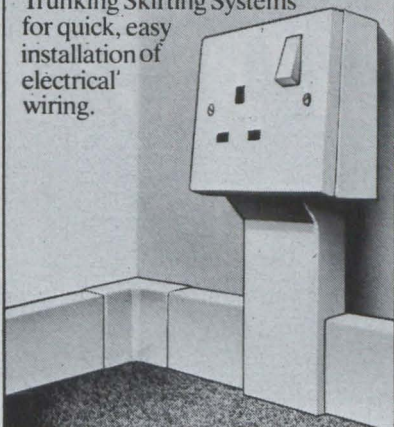


## Daikin Visitors to Coolair

A group of senior executives from the European headquarters of Daikin, the air conditioning equipment manufacturers, recently visited their Irish distributors Coolair Ltd. During their stay in Ireland they visited various local installations. Pictured here are left to right, John Lawlor, Director, Coolair Ltd; Kasuo Tanaka, Director, Daikin Europe N V; Chuichiro Tamura, Managing Director, Daikin Europe N V; and Jim Keating, Managing Director, Coolair Ltd.

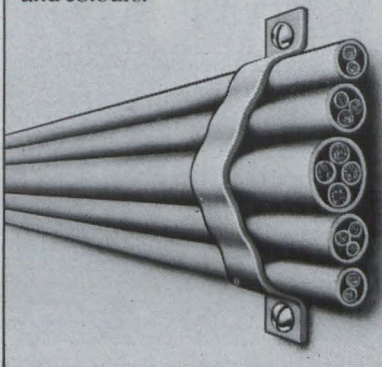
### trunk!

TML and TEK Trunking Skirting Systems for quick, easy installation of electrical wiring.



### band!

TUB and TGB fixing band in galvanised steel and protective plastic coating. Various widths and colours.



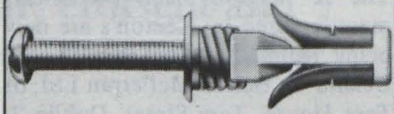
### drill!

Tungsten carbide tipped masonry drills in sizes from 4mm (5/32") to 25mm (1"), standard and 400mm length.



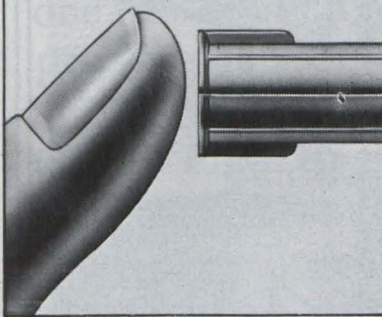
### fix!

Duo-Max and Platti-Plug cavity fixing for use in hollow walls. Suit a wide variety of board thicknesses.



### plug!

Widest range of plugs for screw fixings. Double expanded and colour coded. Extremely strong and durable.



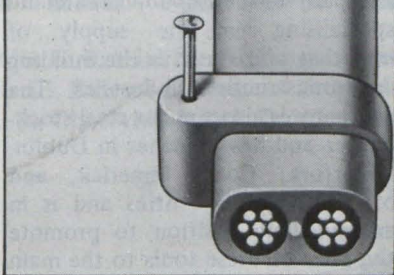
### cover!

TRL 76 and TML pipe cover systems put pipe-work out of sight—but not out of reach.



### clip!

TC clips and clamps to fix all cables. Flexible sizes to reduce stocking. Colour coded boxes for easy identification.



## THORSMANS

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Tick as appropriate: ☐ I'm interested. Please send me the facts.  
☐ Please ask a representative to call.

**Wall-to-wall, everything you need.**



# MODERN PLANT UNVEIL NEW MIRA RANGES

Over 100 people, representing merchants, plumbing, buyers and their counter staffs, attended a reception at Modern Plant's premises in the Naas Road recently for the launching of a whole range of new and updated versions of the standard products in the MIRA range.

Most people know about Mira mixer type showers, which run off the existing hot and cold water system and provide the finest shower of all.

Now — from the same company — comes Miralec, an instantaneous electric shower that works independently of the stored water system. Miralec is quick and easy to install; all you need is a cold water main supply and a separately fused 30 amp electricity supply.

A Miralec shower is a joy to use. Simply turn it on and use the separate control to select the temperature you like. No waiting, no fiddling. And there you are: built in safety devices — a pressure relief valve and a maximum temperature thermal cut off — to guard against any unpleasant surprises.

Neat and elegant with its integral controls, Miralec comes with a 4 ft (1.25m) flexible hose, chrome

plated for lasting good looks. The lightweight handset delivers an accurate cone of water exactly where you want it. So you can keep your hair dry when you shower) — or you can shampoo your hair without getting soaked. The handset, which has removable spray plates for easy cleaning, can be used in the hand or can be clipped on to its wall holder to leave both your hands free.

Miralec, with its waterproof casing, can be mounted over the bath or in a separate shower cubicle. Either way, you'll find it refreshingly cheap to run since you only heat the water you use.

Other products on display included the following:—

New shower fittings: The entire range of shower fittings has been completely redesigned. Modern in style they are ideal for upgrading existing shower installations, they will improve both the appearance and the efficiency. Within the range there are four variations, three are

suitable for an exposed shower mixing valve, the fourth for a built-in shower mixing valve. They are versatile in use, whilst providing a positive shower and the most economical use of water.

Mira showers with gold-plated finish: In parallel with the introduction with a new range of shower fittings, Modern Plant announce the availability of the complete range in a gold-plated finish.

Mira shower rail system: The new Mira shower rail system is made of aluminium and is available in either satin silver or satin gold anodised finish. Elegance, smooth easy performance and simplicity of installation were the priorities for the design of the system. All joining plates are concealed and the wall mounting brackets are designed so as to be unobstructive.

Mira timed shower control: Economy of hot water usage is a very important consideration in industrial institutional and recreational shower installations. The Mira timed shower control is a press action valve which automatically turns the shower off after approximately 30 seconds.

All the new shower combinations, fittings, shower rails and instantaneous electric showers will be supplied in newly styled consumer type packaging.

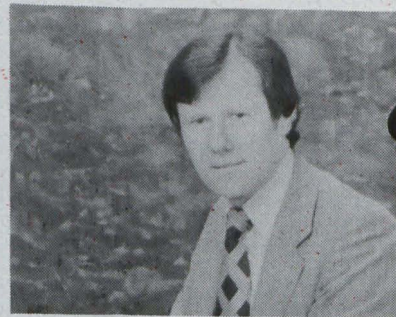


Pictured at the MIRA reception, H Jackson, Director Modern Plant; M Hiscock, Export Manager, Walker Crossweller Group; Noel Lawlor, Manager, Shower Division Modern Plant; and A V Chinn, Sales Manager-Mira.

## APPOINTMENTS

H R Holfeld (Hydraulics) Ltd, have announced the appointment of Mr T M Byrne as Sales Engineer for Dublin City and Country, Kildare and Wicklow.

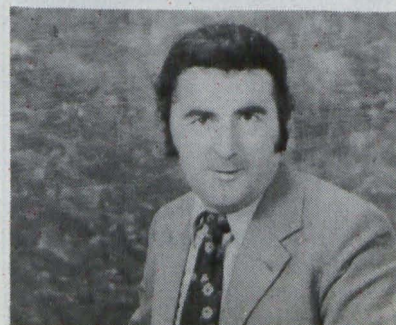
Known as 'Toddy', in the trade, Mr. Byrne will have particular



Thomas Byrne.

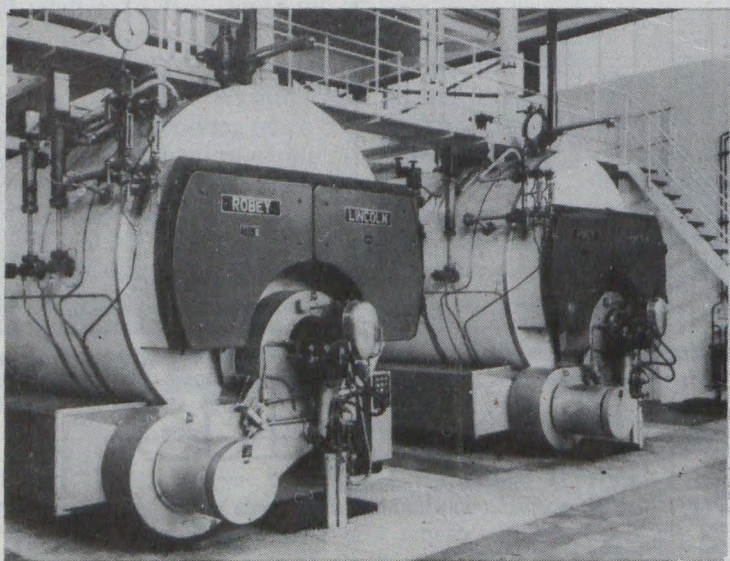
responsibility for the Grundfos new 3-speed industrial circulators, Holpak packaged cold water booster pressure sets, Calpeda end suction centrifugal pumps, Homa and Unistar sump pumps, Grundfos super 4 domestic circulator and, in fact, the complete range of Holfeld industrial pumps and ancillary equipment.

A second appointment has been that of Bernard J. McDermott Technical Representative for the West of Ireland.



Bernard McDermott.

## Robey Reliability



Part of a multiple Lincoln packaged boiler installation recently supplied to a large hospital in North West England.

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S.L. Combustion Services Ltd.,

58 Castlereagh Rd., Belfast BT5 5FT. Tel: Belfast 59282.

## Keetona Appoint Irish Agent

The 'K' range of hand lever shears manufactured by Keeton's are now being handled in the Republic of Ireland by Heiton McFerran Ltd, of Tara House, Tara Street, Dublin 2, on an exclusive basis.

The agreement between the two companies relates solely to the hand tools made by Keeton's, a range that includes several shears of varying capacities for bench or floor mounting, bench-mounted guillotine shears, hand shears, a bar cropping machine, and an angle shear.

Heiton McFerran is the largest company in the Republic of Ireland specialising in the supply of materials and tools to the building and construction industries. The company is also a major steel stockholder and has branches in Dublin, Waterford, Cork, Limerick, and other provincial centres and is in an excellent position to promote the sales of these tools to the main categories of users.

Keeton Sons and Company Ltd is a Sheffield-based GKN company noted for the manufacture of powered and manual sheet and plate metalworking machinery.



# The Carlyle 39M air handling unit.

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**Problem:** What air handling unit to complement your Carlyle refrigeration plant for air conditioning requirements?

**Solution:** The new Carlyle 39M air handling units. The perfectly balanced partner for your Carlyle chillers. Modular, efficient and competitive. (Yes, competitive.)

**Problem:** What air handling plant for your heating and ventilating projects?

**Solution:** The new Carlyle 39M. Ideal for h & v applications.

**Problem:** Air handling units in general?

**Solution:** No problem at all. The new Carlyle 39M. It is the one way solution to your 3 way problem.

Get the full facts about the new Carlyle 39M from Walker. Modular, efficient, competitive, available in a wide range of standard sections to meet all your requirements up to 15,000 cfm per unit.

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Glasgow: 136 Strathmore Road, Balmore Industrial Estate, Glasgow G22 7TA Tel: Glasgow (041) 336 4327 Telex: 779406

Belfast: 9a Cherryhill Road, Dundonald, Belfast BT16 0JH Tel: Dundonald 5235



A member of the Jefferson Smurfit Group



The air conditioning leader





## Unidare Terrain Systems on Display

Pictured at the Unidare Terrain reception at the Gresham Hotel where they displayed some of the products from the Unidare Terrain Systems '78 range were (left to right) Liam Winters, Posts & Telegraphs; Dan O'Connor, Unidare; Peter Caplin, Technical Director, Key Terrain (UK) Ltd and Kieran Quigley, Posts & Telegraphs. Mr Caplin is demonstrating the advantages of the new two-part joint which revolves from a straight line to a degree. Approximately 100 people attended the reception which included refreshments and a film on the manufacturing process employed at the Key Terrain factory.

## Joins Board of Holfeld



H. R. Holfeld (Hydraulics) Ltd, a member of the Holfeld Group of companies, announce the appointment of Richard R. Holfeld as a director.

# Wadkin Appoint Modern Tool as Irish Agents

Wadkin have appointed Modern Tool and Equipment Co Ltd of Lisburn, Dublin and Shannon as sole agents for Wadkin, Bursgreen and Evenwood machines for the Republic of Ireland. Modern Tool previously held the agency for Northern Ireland only, but they are now taking over the Republic of Ireland from H. J. Niblock and

Son who are terminating their business in the Republic.

Wadkin customers in Eire however, will be pleased to learn that Norman Niblock will be joining the Modern Tool sales team as their sales executive and continuity of service is assured.

The additional back-up facilities of Modern Tool with their exten-

sive showroom facilities at John F Kennedy Estate, Naas Road, Dublin and Belfast Road, Lisburn will now be available to all Wadkin, Bursgreen and Evenwood customers throughout the island as a whole.

This, together with the combined experience of Norman Niblock and Stanley Shaw, Manager of Modern Tool's Woodworking Division, will enhance the already well established customer service.

## BRIEFLY

Fordham Plastics Ltd has been formed to co-ordinate the operations of Fordham Pressings Ltd and Bartol Cisterns Ltd which now become subsidiaries of Fordham Plastics. The new company will also become the marketing, sales and distribution vehicle with manufacturing continuing at Fordham Pressings in Wolverhampton and Bartol Cisterns at Addingham, Ilkley. Mr V J Roberts, a Director of Hepworth Plastics Ltd and Deputy Chairman of Bartol Plastics Ltd becomes Managing Director of the new company. Mr C A Ball has been appointed as Commercial Director, Mr R C Smith as Chief Marketing Executive and Mr A J Johnson as Chief Sales Executive.

## APPOINTMENT

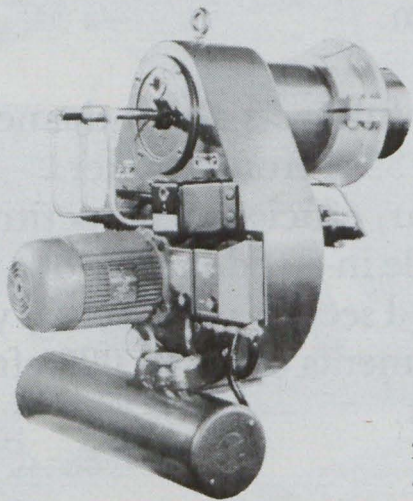


George Brassil who has been appointed Sales Administration Manager for Midland International Ltd, manufacturers of Flair bathroom accessories. A native of Dublin, Mr. Brassil returns from the UK where he spent 17 years with major organisations including the Greater London Council and Sainsbury's. At Midland International he will also be responsible for customer liaison.

Peter Dunne Products: This Ennis-corthy, Co Wexford based firm supplies pre-cast concrete septic tanks of varying sizes and for many purposes. They are mostly suitable for one house but to cater for a larger capacity, two or more can be linked together to suit factories, lounge bars etc. Delivery is subject to stock availability and transport but every effort is made to facilitate customers with the design of their choice.



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# Wm Coates & Son

## Move to New Premises at Newtownabbey

Some would say the end of an era others the beginning of a new generation with the announcement that Wm Coates & Son Ltd have moved from their premises at Charlotte Street to the industrial estate at Trench Road, Mallusk, Newtownabbey, where they will join a number of other companies associated with the heating and ventilating industry.

The new premises comprise design offices, workshops, stores and administration block mark another step in the history of this world famous company. Founded in 1777, the company is possibly the oldest heating and ventilating in Ireland having been involved in the development in the very early applications of gas and electricity as sources of heat power and light.

The growth of the company has been closely allied to the development of the industry and commerce of the province and one sees on reading the history of the company how its policies and developments have changed over the 200 years.

The present Directors Mr R. Buick, Mr F. Buick and Mr D. McKnight are to be congratulated on their new premises and keeping this fine old company in the forefront of the modern heating and ventilating industry.

Mr. S. Mills who has been for a number of years Chief Architect of the Dept. of Finance, recently retired to be succeeded by Mr J E Elliott.

In an interesting development in the electrical heating field Glen

Electric Ltd of Newry, Co Down have acquired the trade names, the name Dimplex a part of the product range of this Southampton based company.

Announcing the end of the negotiations Mr Martin McNaughton, Managing Director of Glen Electric Ltd, paid tribute to the practical assistance they had received from the N.I. Development Agency.

This continued expansion of the Glen Electric product range now places them among the major manufacturers of such equipment in the UK.

## NORTHERN IRELAND REVIEW

The very active Benevolent Association known as the Lighthouse Club recently held its annual meeting of the Northern Ireland Branch in the Europa hotel. The following were elected as the principal officers of the branch for the ensuing year, Secretary — Mr S Corry, Treasurer Mr H. Parker, Chairman Mr. J D Liddell.

Mr Eric McBride presided over the Annual Burns Supper and Dance of the Institute of Fuel (N.I. Section). About 150 members and guests stood to receive the Haggis which



At the Institute of Fuels' Burns' supper and dance were M. Newall, W Downey, Mrs. Green and T Green.



Also at the Burns supper were Pipe Major McE Johnston, J Brown, Mrs Patterson, F R McBride, Mrs McBride and J M Patterson.

was piped in and received in the traditional manner.

Mr John Brown delivered the address to the Haggis and eventually "finished it off" according to tradition.

Mr Ian Paterson gave the toast of the "Immortal Memory" which was followed by the toast of the "Lassies" given in humorous rhyme by Mr James Millar.

Following the "Supper" the guests joined for dancing and merrymaking until the "wee small hours"

S L Combustion Services Ltd of Belfast have recently been appointed Northern Ireland agents for the extensive range of industrial heating equipment manufactured by Wanson Company Ltd of Borehamwood, Herts, whose products include vaporax steam generators, thermopac thermal fluid heaters and thermobloc air heaters.

These products are already widely used throughout Northern Ireland. S L Combustion's well-known operations in the boiler and heating fields will be further strengthened by the new agreement, which will also increase Wanson's market penetration into Northern Ireland.

Local Agents Heating Controls & Devices Ltd along with installing contractors Johnson Bros & Wilson Ltd joined together for the install-

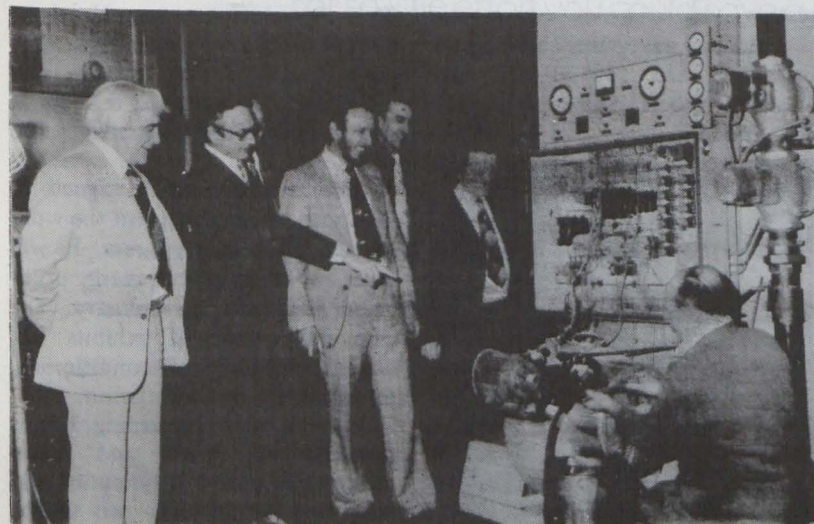
ation of an unusual Parkinson Cowan G.W.B. Boiler at the premises of J. P. Corry & Co Ltd, Springfield Road, Belfast.

The boiler rated at 8250 lbs/hr is fed with wood chips and sawdust from an adjoining 10 ton silo where it burns in suspension in the specially designed combustion chamber. Fitted to the boiler also is a Nu Way pressure jet burner suitable for the burning of heavy oil. The burner is used for the initial ignition of the wood waste and also as the fuel supply when the wood waste is not available, thus giving the company the choice of two fuels.

Parkinson Cowan produce a range of multifuel boilers together with oil fired, solid fuel and gas units; and over the years they have installed many units similar to this one though it is believed that this installation is the first of its kind in Ireland.

With the appointment of Mr T B Montgomery as regional sales manager AAF Ltd the UK manufacturing and marketing subsidiary of the American Air Filter Co, have opened a regional sales office at Boucher Road, Belfast.

AAF have been operating in Northern Ireland for some years through a major agency company from whom Mr Montgomery joined AAF, but it is expected that this new arrangement will facilitate an improvement of their service to customers.



Wanson's Managing Director David Smythe, making a point in the test procedure of a dual-fuel Thermopac thermal fluid heater rated at 2350kW in Wanson's test bay during a visit to Borehamwood by the top management of S.L. Combustion Services Ltd of Belfast. Pictured from left to right are:— Mr V Lindsay (S L Combustion); Mr D J Smythe; partly concealed Mr G R Badger (Wanson's Space Heating Sales Manager); Mr G Castles (S L Combustion); Mr P E Crighton (Wanson's Process Heating Sales Manager); and Mr G Stewart (S L Combustion).



# Air Monitors Range Launched on Irish Market

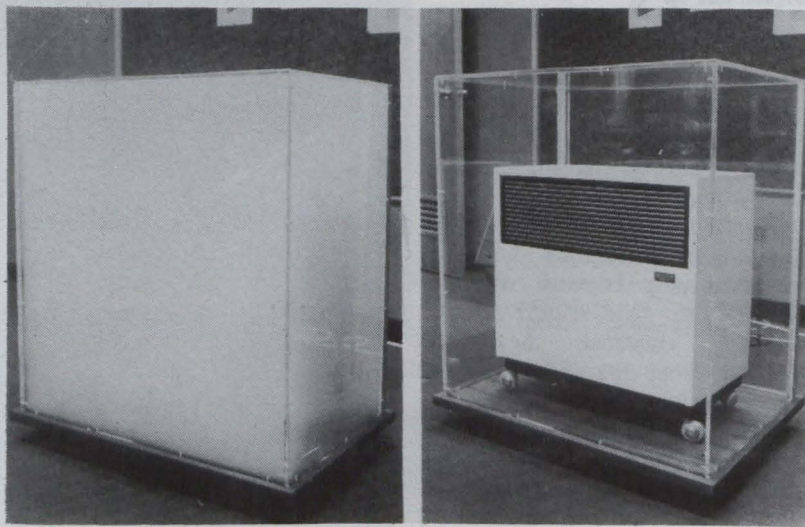
Air Monitors Ireland Ltd, distributors of air cleaning systems for commercial and industrial premises, has launched the internationally known Airmonitors range of products on the Irish market.

Operated on electrostatic filtration principle originally developed for the Polaris submarine, the units are designed to clear smoke, dust, pollen and other pollutants from the atmosphere in a matter of seconds.

Already well established in the UK and other countries around the world, the range comprises four basic models: The Magnate for industrial and large commercial premises; the Hyaline for pubs and clubs; the Executive for large offices and the Chatelaine for small offices and domestic use.

The Airmonitor machines operate quietly and are easily serviced. With no special plumbing or ducting required these compact plug-in units offer a new and effective method of air cleaning at relatively low cost.

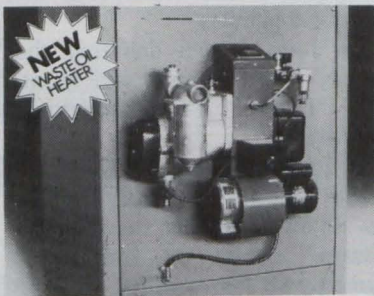
An added benefit of the system is the considerable saving on heating costs made possible through



*These before, and after pictures, showing the Airmonitor Executive air cleaning unit in action, were taken within 6 seconds of each other — demonstrating the effectiveness in cleaning polluted air.*

the cleaning and recycling of air already heated.

Further information can be obtained from the distributors, Air Monitors Ireland Ltd, 23 Upper Mount Street Mews, Stephen's Lane, Dublin 2, (Tel: 761204).



## Catch up on all the news from Powrmatic.

There's been a lot going on at Powrmatic just lately. Things you should know about.

Like the new Powrmatic Sabiana Hot Water and Steam Unit Heaters now available ex-stock.

And the new Powrmatic Waste Oil Heaters, the cleanest, most efficient on the market.

They're two of the latest additions to our air heating range. And customers will be asking about them pretty soon.

There's literature on them available right now. As well as new updated literature on our best-selling gas-fired and oil-fired heaters.

Fill in the coupon and we'll send them hot off the press.

To: Powrmatic Limited, 186 Barton Road East, Dundrum, Dublin 14. Tel: 984795

Powrmatic Sabiana  
Unit Heaters ☐

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Gas-fired and Oil-fired Heaters ☐

Name .....

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**powrmatic**  
Do business in the right atmosphere

## Energy Conservation Exhibition

The first appearance of the exhibition and the second appearance of the congress EUCON — Energy Utilisation And Conservation In Industry will be held at the Royal Lancaster Hotel, London from 10-12 April. EUCON is a combined congress and exhibition designed to discuss and illustrate the rational use of energy in industry and to demonstrate the technology available for energy conservation.

The EUCON '78 Congress is sponsored by the National Fuel Efficiency Service (NIFES) and will have technical support and contributions from the European Economic Community through its Directorate-General for Energy; from the National Engineering Laboratory (NEL) (who organised the first EUCON Congress at Edinburgh, Glasgow in 1975); from the Department of Energy; The National Coal Board; The Gas Council; The Electricity Council and British Steel.

The major role of NIFES in planning the EUCON '78 programme and in the selection of speakers at the congress has been to ensure that it is a practical event. It is designed to demonstrate to senior management the means by which energy costs may be reduced immediately, how plans may be made for future investment programmes. Such programmes are increasingly influenced by aid and legislative policies on both national and international bases. Speakers from such bodies as the EEC and The Department of Energy will emphasise this in their papers.

The congress will make a significant contribution to the campaign for the rational use of energy — illustrating how the adoption of proven techniques can offer a high yield on investment.

The congress itself will be accompanied by the first appearance of the exhibition. It will be held in the Westbourne Suite of The Royal Lancaster Hotel — adjoining the congress hall. The planned area of the exhibition is approximately 5,000 sq ft — set in a gross area of approximately 7,500 sq ft.

The exhibition is designed to illustrate and complement the work of the EUCON Congress. It will cater for all aspects of energy utilisation especially in industry. The principal groups of exhibits will cover insulation, air-conditioning, environment, and ventilation.

All enquiries concerning visitor arrangements, hotel and travel arrangements and general information should be addressed to the organiser, Peter Mirrington, Exhibition Director, EUCON '78 Exhibition & Congress, Brintex Exhibitions Ltd., 178-202 Great Portland Street, London W1N 6NH. (Tel: London 637 2400).

## Pipe-Freezing Service

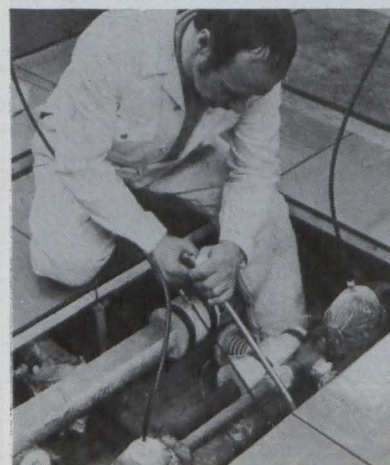
A new radio-controlled mobile pipe freezing service for small bore pipes is announced by the BCB Group of Companies who are possibly the world's leading specialists in pipe freezing techniques and applications.

To provide the service, a new London-based company, Jetfreeze Ltd, has been formed. It will use the 'Jetfreezer' technique to form freeze plugs capable of withstanding very high pressures.

The Jetfreeze engineers are equipped to tackle a variety of jobs on site, from the removal of small radiator valves, to the insertion of new branches or sections and the modification or re-routing of high pressure pipelines.

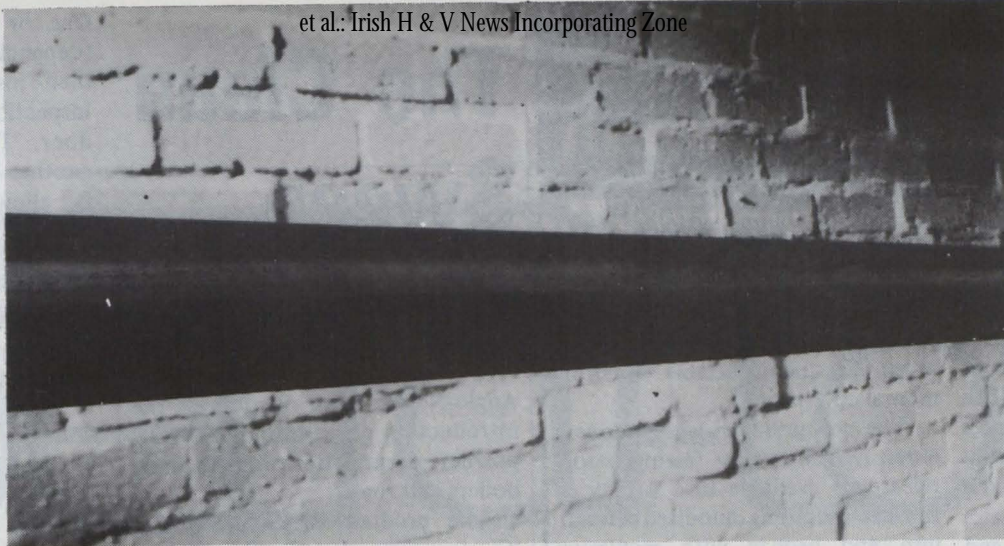
The facility provided by the new service, it is claimed, reduces maintenance and replacement time to a minimum as repairs and modifications can be carried out without draining or closing down the system.

Details are available from Jetfreeze Ltd, 18/20 Crunden Road, Croydon, Surrey, (Tel: 031 681 2061).

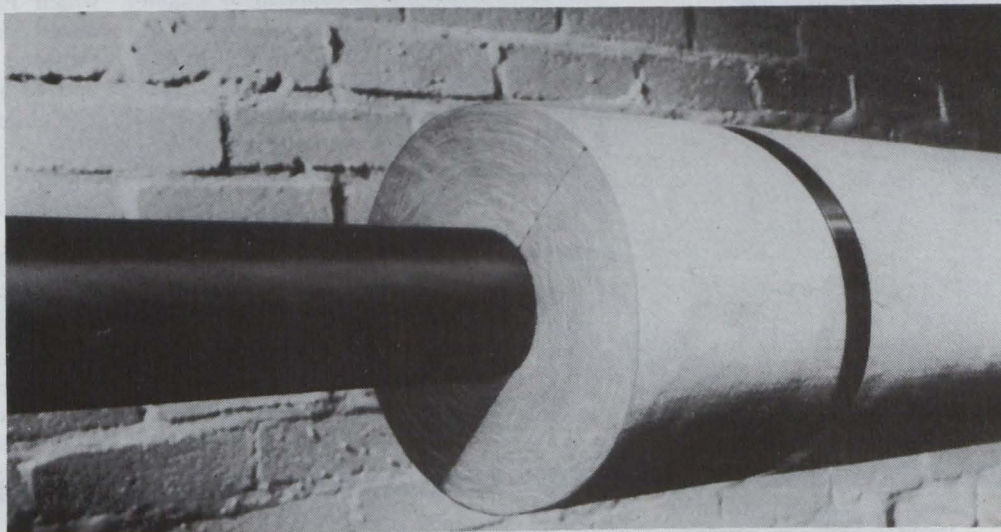


*The 'Jetfreezer' technique being used to install control valves without draining the system.*





# £2-41 per day



# £0-22 per day

We're talking about heat losses in cold cash terms.

We're also talking about the very substantial savings that can be achieved by insulating factory pipes effectively with Fibreglass Rigid Sections.

For so little effort you could save a lot of energy and cold, hard cash.

The example above makes the point.

Take 100 metres of 60mm diameter pipe operating continuously at just 70°C.

The boiler is fired by oil at 39p per gallon and operates at 65% efficiency.

Bare, this pipe loses £881 annually in wasted heat.

Insulate with 38mm thick Fibreglass Rigid Section FRS 950 and that waste is reduced to £81. That's £800 saved annually on just 100 metres of pipe.

It must make you think about the bare pipes and poorly insulated pipes in your factory.

Where insulation needs upgrading Fibreglass lamella Crown is ideal.

It can be applied on top of existing insulation. Or over a group of pipes in one wrap.

And don't forget that Government Grant Assistance is available as part of the Energy Conservation Programme.

For further information contact Fibreglass Limited,  
21 Merrion Square North, Dublin 2. Tel: Dublin 767060.

**Fibreglass  
Limited**

## We got to the top by saving energy.



## New Ceiling Grille from Barber & Colman

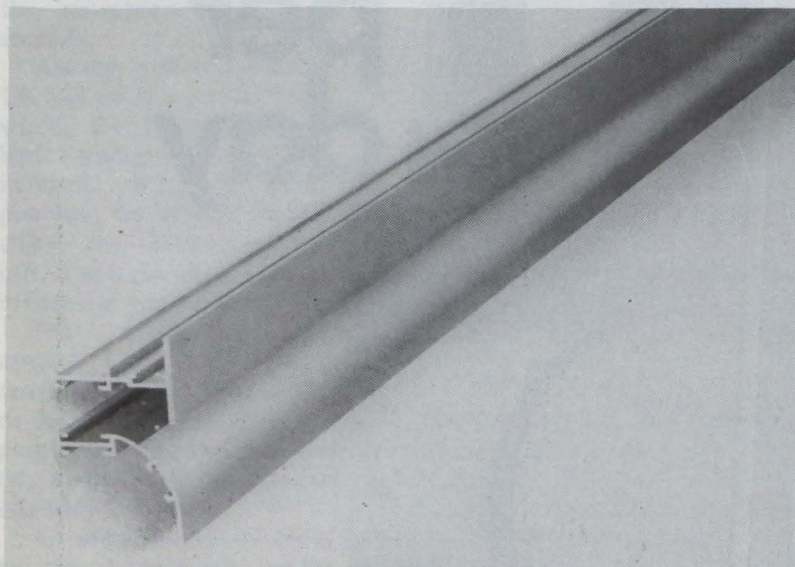
Barber and Colman Ltd, manufacturer of the world's most extensive range of air distribution equipment, has introduced a revolutionary new ceiling grille — the continuous line diffuser, Model CUD.

Launched recently on the Irish market by Coolair Ltd, distributors of Barber and Colman equipment in Ireland, the new grille delivers the same volume of air per foot run as a conventional four slot diffuser and is designed to produce one way or two way air patterns.

Ideally suited for use with

variable air volume systems (VAV), a major advantage of the new CUD grille is that air flow can be throttled down to complete shut-off without dumping taking place — thereby avoiding uncomfortable environmental conditions.

The new grille, which underwent extensive laboratory testing before release, is available in a variety of finishes including anodised aluminium and bronze with maximum widths of 76 mm for one way units and 121 mm for two way units.



An example of the new continuous line diffuser, Model CUD, manufactured by Barber Colman and now available in Ireland from Coolair.

## The Clean Sweep for Boilers

Anglo-Nordic have announced the introduction of an entirely new dry powder formulation for cleaning boilers and flues.

The product, known as Expel 'C', is a new dry powder cleaner which removes encrusted carbon, scale and free soot from the combustion zone and flue of most kinds of boilers without the need to scrape it away, inch by inch. The gases produced by Expel 'C' penetrate into the most inaccessible places which are impossible to scrape or reach with a brush.

Expel 'C' is supplied in a compact tube, 7" long by 1 1/4" diameter, small enough to introduce through a boiler's combustion chamber sight hole without opening the door. The containing tube is of cardboard which burns readily and quickly.

### EASY TO USE

The use of Expel 'C' is extremely easy. First the boiler is allowed to run for 15 minutes at high temperature which must be up to a minimum of 350 degrees C

One or more tubes of Expel 'C' (depending on the boiler size) are then inserted through the flame inspection hole or through the fire door. The boiler is run on for another 60 minutes, after which it is allowed to cool. The gases produced by combustion of Expel 'C' break down internal boiler deposits, and dislodge scale from the combustion chamber surfaces and from those of heat exchangers, flues and cavities.

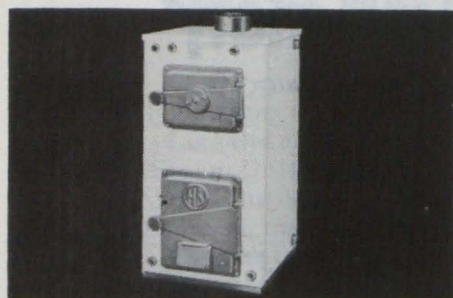
### VACUUM

When the installation is cool any remaining debris not expelled through the flue can be quickly removed by means of any efficient vacuum cleaner. A single tube of Expel 'C' will effectively descale boilers up to 100,000 BTU capacity. Complete dosage instructions for larger boilers are given with the product.

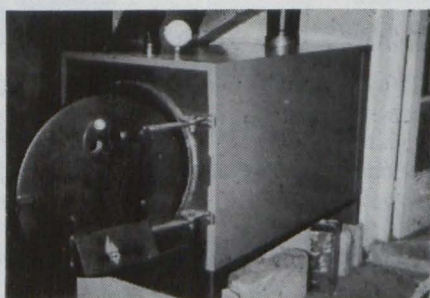
The handy cardboard tube in which Expel 'C' is solid is introduced unopened into the boiler. Provided the tube remains unopened, it is absolutely safe in use. The boiler cleanliness attainable by the use of Expel 'C' provides two important bonuses. Because boiler cleanliness is a cornerstone of fuel economy its regular use not only aids the service engineer in his work but also makes possible the reduction of running costs of a heating system; and by the reduction of fuel consumption it aids the Government's fuel conservation programme.

## DO YOU KNOW?

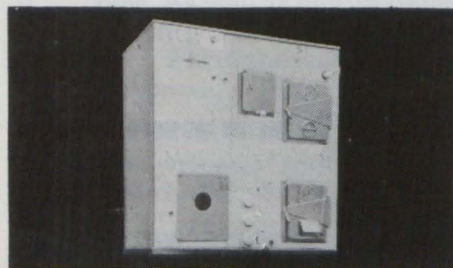
## TARM BOILERS BURN TURF, COAL, LOGS, SAWDUST, OIL, GAS, PAPER, RUBBISH ETC.



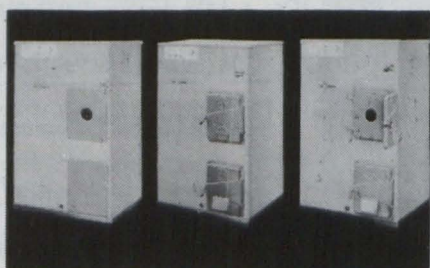
FTC



A16 or A35



O.T.



MB

Central Heating is still very cheap to run even with today's rising fuel prices when you have a TARM combination central heating boiler. TARM boilers are so designed that simply, opening one door and closing another you can switch from oil to solid fuel heating. The TARM has proven that you can heat your house for as little as 50p per 24 hour day, based on average 1200 sq ft house in Dublin. The Tarm is completely automatic as the heat-increases the dampers close, thereby controlling the rate of burning and the amount of fuel used. TARM have a boiler to suit everybody, from the tiny F.T.C. to the wonderful O.T. type. The FTC is 34 inches high, by approx 20 inches square will fit in any boiler house or back of garage, can be put in a kitchen. One stoking lasts all night, average stoking every 6 hours.

**OLDMILL LTD. Clonee, Co. Meath Tel. 01-255443**



# DELTAFLOW

**Silver Spa and Morado ranges  
of luxury bathroom fittings**



Sculptured in chrome with glistening acrylic heads the Deltaflow Silver Spa and Morado ranges offer a comprehensive selection of taps and mixers for sinks, baths and basins. Take the Silver Spa range, for instance. Stylishly attractive and most efficient. Or gold plated Golden Morado, the absolute ultimate in elegance and sheer luxury. We'll gladly send you details.

## Sanbra Fyffe

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Dublin 9.  
Telephone 379291. Telex 5325.

Aubrey Fogarty Associates Ltd.



# New Sunset Solar Heating Controller from

## Mc Kennas

The Sunset solar heating controller type SS1, is designed for operation with solar heating systems using pump circulation. Effective use of solar energy can be made only by using a temperature difference control system.

The principle of operation is based on a precision nickel resistance thermometer the probes which are placed in the solar panel and in the hot water tank. The controller SS1 continuously compares the probe resistance and switches on the pump when this measurement indicates that the panel temperature exceeds the tank temperature. When the temperature difference falls, the pump is switched off.

In addition to this essential operation, special attention has been paid to ensure exceptional ease of installation, self-checking facilities and above all safety. Features include rugged die cast metal box; no exposed connections;

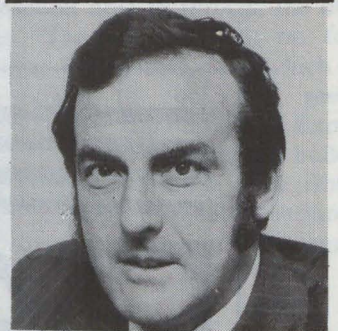
large, easy access terminal blocks; reversing lid feature for rapid installation; mains switch, fuse and indicator lamp; panel pump switch which energises the pump directly for commissioning operations to be carried out (essential during installation); panel test switch which checks the correct function of the controller; and a pump indicator lamp which lights when

the pump is energised.

Technical data: Model SS1 — supply — 240 Vrms; probe voltage — 1.5 V dc; ambient temperature — 0°C to 70°C; pump load — 1 kw max. at 240 Vrms; probes (separate) — Nickel resistance thermometer, 100 OHMS at 0°C, 34.5 OHMS fundamental interval; size — (223 x 146 x 51 mm); and weight — (766 gm).

Further information is available from McKenna Distributors Ltd, Astons Quay, Dublin 2, (Tel: 773132).

## APPOINTMENT



Moy Materials Ltd, distributors of Morter-Plas roofing membrane, have appointed Bernard Brennan as Manager, Roofing Division. He was formerly manager in Ireland for Ruberoid Ltd.

# COMPUTERISED OSC SYSTEM

What is believed to be the world's first fully computerised optimum start control system for controlling intermittent heating systems in schools, clinics, industrial and

office buildings, has been designed, developed and built by the Comfort Control Group of Landis & Gyr Ltd.

The system, which can be used with all types of heating, ventilating and air conditioning equipment, has been designed to make the most efficient use of energy yet ensuring that the building is heated to the correct design temperature just prior to the start of the working day.

This latest OSC system incorporates a micro-processor and, as such, no calibration is required. This is connected to an outside control detector and one or more inside detectors. When the building is closed for the day or at the weekend, the inside unit acts as a condensation or frost protection detector. This ensures that the heating plant is brought into operations to maintain a minimum space temperature should it fall below a pre-determined level (normally set to 10 degrees, but it can be adjusted between 2 and 15 degrees C).

At a set time, before the premises are occupied, both the inside and outside detectors are brought into use together with the Micromiser's time-based circuit. This is the "search period" and is determined for each building and calculated at the design outside air temperature condition. Normally this is 0 degrees C.

In extremely cold weather, some plants do not have sufficient capacity to raise a building's temperature from the frost protection

level setting to the normal comfort level after being shut off all night. In these cases an automatic extension of the search period is required so that the plant comes on earlier to allow more time for the inside temperature to be raised.

It is a well known fact that a building, due to its own inertia, tends to overheat in the afternoon because the majority of heating plants are left operating until normal shutdown time. Apart from wasting energy and increasing the fuel bill it also affects working efficiency due to people's body temperatures rising after eating their lunch. They become tired. The optimum off feature, if selected, comes into effect a number of hours prior to the normal shutdown of the heating plant. It compares the inside and outside temperature and, via the micro-processor, computes what the optimum off slope is to be and, at the commencement of the optimum off search period, switches off the heating plant if the outside and inside temperatures agree.

Should a sudden decrease in the outside temperature occur causing the inside temperature to fall faster than computed, the heating plant will switch on when a pre-set minimum has been reached and the plant then operates until the normal switch off time.

Further information on availability etc is obtainable from Brown Boveri (Irl) Ltd, Taney Road, Dublin 14, (Tel: 983544).

# Cradley Boilers.

efficient/compact/complete/accessible.

Cradley steampacket boilers are generously rated to ensure that they don't get overloaded. You get long lasting reliable service. They are renowned for their high efficiency, for their ease of accessibility and for the quality of manufacture.

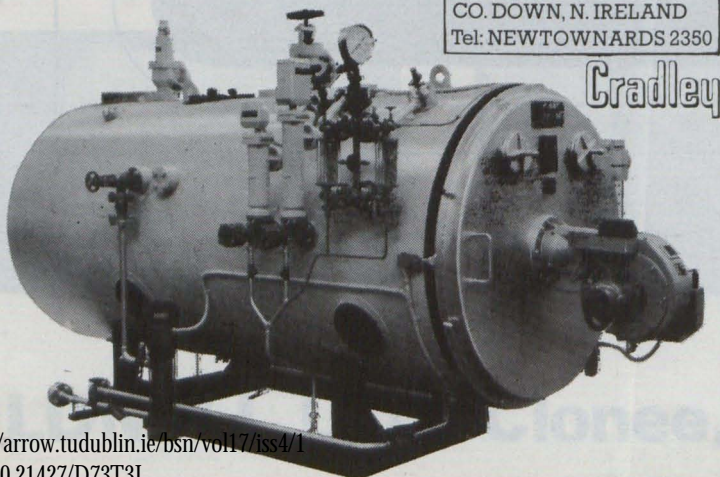
Oil and gas fired models are available with outputs from 500 lb. to 20,000 lb. per hour.

**CRADLEY—boilers to rely on.**

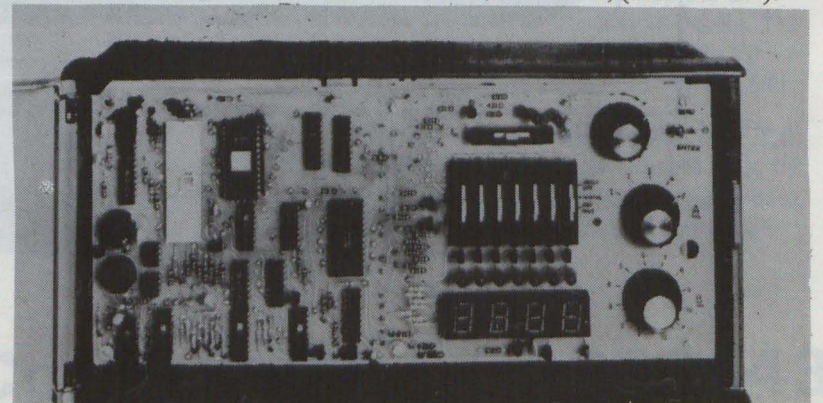
CRADLEY BOILER COMPANY LTD.  
Woods Lane, Cradley Heath,  
Warley, West Midlands B64 7AN.  
England.

Tel: Cradley Heath 66003

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NEWTOWNARDS,  
CO. DOW, N. IRELAND  
Tel: NEWTOWNARDS 2380



Cradley



The Landis & Gyr fully computerised Micromiser optimum start control system for controlling intermittent heating systems.



# Halma's Record Half-Year Profits Boost

Development at three heating and ventilating companies, Standard & Pochin, Argosy Fenton and Secomak Air Products, contributed to the record half year profits of parent group Halma, which announced profits, before tax, of £403,661 for the half year to 31 September, 1977 — more than double the £170,107 in the half year to September 1976.

During the half year, turnover increased by 26% from £3.6m to £4.58. Profit after taxation increased from £81,651 to £240,945 and earnings per share from 1.73p to 5.10p.

Standard & Pochin's new range of fan convectors won orders from local authorities, education boards, hospital administration and commercial organisations. Air handling equipment sold well and exports of such items as coils have risen faster than current market conditions would indicate.

Argosy Fenton's newly introduced products such as the Contouramic, Pyrobel and Pyrojector won a series of important

contracts and with the endorsement of insurance companies and fire authorities, are now on all cost conscious specifiers tender lists.

An increase in cost conscious among pipework installers has given Secomak a series of new customers for their gas booster which can dramatically reduce installation costs by boosting gas pressure and thus reducing pipe and valve size. All three companies say that while considerable progress has already been made they are optimistic about future prospects.

Talking about the group as a whole, Halma Chairman David Barber said, "These results demonstrate a further major step forward by the Group. The current half year's profit is nearly 2½ times the corresponding figure reported 12 months earlier and over six times the level achieved by this Group only two years ago.

They are a further confirmation of the growth potential of many of the markets in which this Group is now established. It is clear that in the absence of any major unforeseen circumstances profit before taxation for the year to March 1978 will be significantly higher than last year's record.



Mr. P.J. Doyle has been appointed Chief Executive of H.A. O'Neill Ltd, a subsidiary of The Jones Group. Mr. Doyle a corporate member of the Institute of Building Services, joined H. A. O'Neill Ltd in 1968 and was appointed to the Board in 1976. The company is a leading mechanical contracting company in Ireland and is the largest Jones Group subsidiary.

## Latest PVC Gully from Quality Plastics

The latest PVC gully from Quality Plastics Ltd provides drainage designers and installers with a single unit which, with the minimum of on-site adaptation, will cater for virtually all gully requirements.

It is designed primarily for use in any situation involving 110mm PVC drainage pipes and fittings to BS 4660 but can, however, be used with other 110 mm drainage materials in conjunction with the appropriate adaptors available in the Polydrain range.

The gully is supplied as standard as an open trapped gully — 'P' outlet complete with a removable PVC grid. It can be used in the following situations —

Plain trapped gully — to accept open discharged rainwater or surface water; Vertical back inlet gully — to accept rainwater downpipes or waste water pipes from 1¼"/32mm to 3"/75mm sizes, in plastics or other materials; Horizontal back inlet gully — to accept direct connection of plastic pipes or

fittings in 2"/50mm or 4"/110mm sizes; Sealed vertical or horizontal back inlet gully — for above applications but with cast iron screw-down inspection Eye frame and cover in place of PVC gully grid; and 'Q' outlet, 'S' outlet or access gully — as above but with appropriate 'Polydrain' fitting applied to gully outlet.

Further information is available from Quality Plastics Ltd, Whites Cross, Co. Cork.

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**PENN ROOM THERMOSTATS**

**PHOTOHELIC LOW PRESSURE GAUGES**

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### MANOTHERM LTD.

**Controls and Gauges for all industries**  
THE CONTROL CENTRES

4 Walkinstown Road  
Dublin 12  
Phones (01) 504025 & 783387

10 Knockbracken Park  
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Phone 645966



# Satchwell

## ECONOMY START SYSTEM TYPE ESS CAN SAVE UP TO 25% OF HEATING COSTS

Here's news for the owner of the smaller intermittently occupied building for whom sophisticated fuel saving controls have hitherto been ruled out on grounds of cost.



The Satchwell Type ESS Economy Start System is an inexpensive, yet highly efficient programmer which not only controls boiler firing according to occupancy periods, but also adjusts the actual heat-up period taking into account day-to-day climatic temperature changes.

It thus ensures that heating is switched on at the last possible moment that will ensure comfort temperature at the time of next occupancy.

If you've taken all the usual fuel saving steps, such as insulating your building and fitting reliable thermostats, you can still save up to 25% of your present fuel bills with the ESS System, for an extremely low investment.

### Satchwell Control Systems Limited

32B James's St., Dublin 8  
Telephone: Dublin 7 56260 and at Belfast 660107

Please send me details of  
the ESS Economy Start System.

Name \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Tel: \_\_\_\_\_

## New System from AWS

The latest AWS fully automatic dealkalising system from Advanced Water Services is a packed modular design plant suitable for boiler feed, process water, potable water and beverage water treatment. It will effectively remove bicarbonates and temporary hardness, reduces dissolved solids and minimises boiler

blowdown.

AWS dealkalising plants are fully skid-mounted, pre-tested, and pre-run in the assembly shop prior to despatch. This ensures the plants are completely operational before leaving the works, reducing to an absolute minimum, the time required for installation and commissioning.

The process of dealkalisation relies on the fact that weakly acidic ion exchange resins in the hydrogen form are selective for the cation associated with the bicarbonate and other weakly ionised radicals.

The regeneration procedure is very simple, and the process has a high stoichiometric efficiency. Automatic control offers full compatibility to meet the requirements of modern industrial plant design.

## BRIEFLY

Systems & Electrical Supplies Ltd, are now marketing what is probably the shortest cable tie available in Britain. Manufactured of natural virgin nylon, the new tie is only 75 mm long and has been introduced as a result of market research, which has shown that a large number of cable tie users of the conventional 90 mm - 100 mm tie are cropping off, therefore wasting up to 25 mm and in some cases above 30 mm. The new tie designated SKB-75 - contains locking serrations almost up to the neck of the head, therefore the bundle tying capacity is very near to the conventional larger ties on the market today. Further information is available from Roper Bros Ltd, 5 South Anne Street, Dublin 2.

## IPI

The Irish Planning Institute has produced the first booklet in a new series providing a forum for professional comment on major planning issues of current importance.

"Irish Off Shore Oil & Gas: the Challenge for Planning" by Kieran Archer B.E. M. Phil. has just been published and, in a foreward, Patrick Shaffrey, the President of IPI, outlines the challenge presented to Irish planning arising from the discovery of offshore oil and gas. Mr. Shaffrey states that it is an area of enormous national importance which requires careful advanced planning if maximum, overall benefit is to be derived.

The IPI hopes to produce further booklets which will expand on specialised aspects of oil and gas and on other relevant planning issues to be selected.

In an effort to extend our coverage of this sector, IHVN will publish an interview with Colm Brennan, chairman of the Irish Offshore Services Association (IOSA) in our next issue.

## Dimplex Heating Introduction

On 3 January, the first heaters started to come off the production lines at the Southampton factory of Dimplex Heating Limited, the new Company formed after the acquisition of Dimplex Limited by Glen Electric of Northern Ireland. Seen here inspecting the finish of the first oil-filled radiator shell to come through the stoving oven are (from left) Terry Goddard, Managing Director of the new Company, Mike Evans, Commercial Director and Lou Dibden, Works Manager.





# product review : PUMPS & CIRCULATORS

## Pump Services

The Pumps Division of Crane Ltd, represented in Ireland by Pump Services Ltd, Willbrook Road, Rathfarnham, rationalising its equipment over the last few years, has expanded its product range with the introduction of a number of compact, easily installed packaged systems for specific applications, embodying pumps for the standard Crane Mopump range.

The most recent introduction is the Crane FHR fire hose reel sets. These ensure a pressurised supply up to three hose reels in large buildings where mains pressure may not be able to fulfil demand. The set comprise duty and standby G-range unit construction pumps, a small pressure tank, switchgear, valving and pipework and only requires three site connections.

Crane has redesigned its PBS pressure booster sets to form a lighter and more compact unit. The PBS ensures a constant supply of cold water to tall buildings

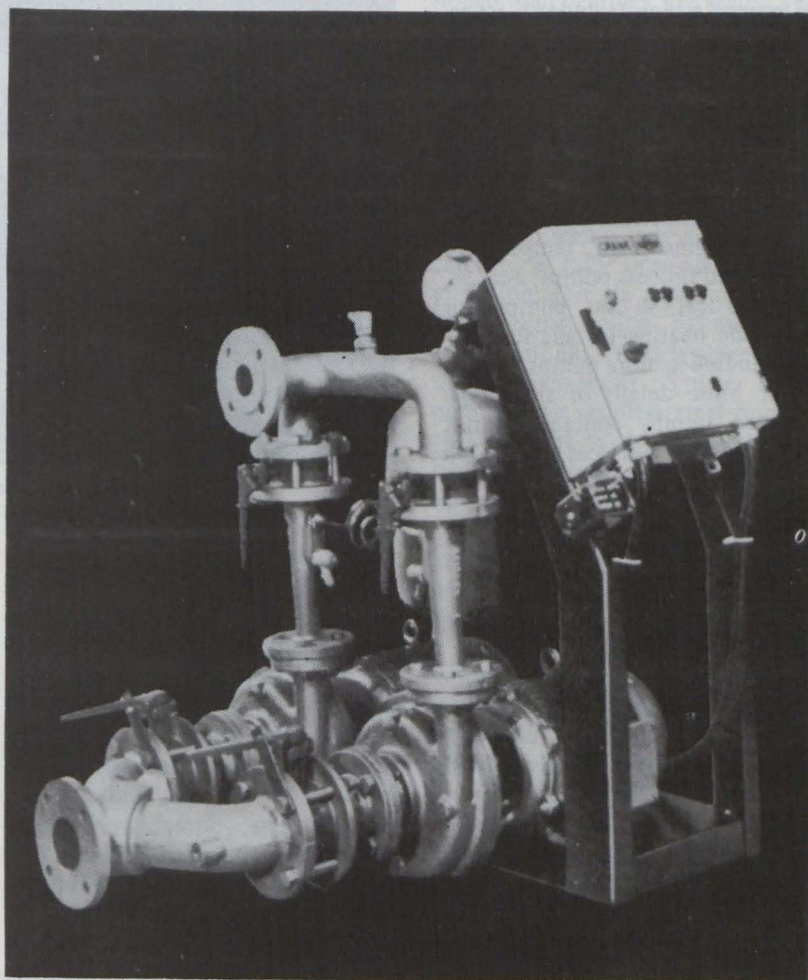
where incoming pressure is too low. The pressure tank meets any small demand until the pressure within the tank falls below a pre-determined level when the pumps will cut-in to sustain supply and replenish the tank.

Also recently introduced into the pumps division's range is the Crane CBA condensate booster system. The CBA system ensures complete and constant drainage of steam lines of condensate in steam unit heaters, absorption refrigeration systems and other processes where steam is used as the heating medium. The removal of condensate as it is formed increased the heat transfer efficiency and drastically reduced steam production costs.

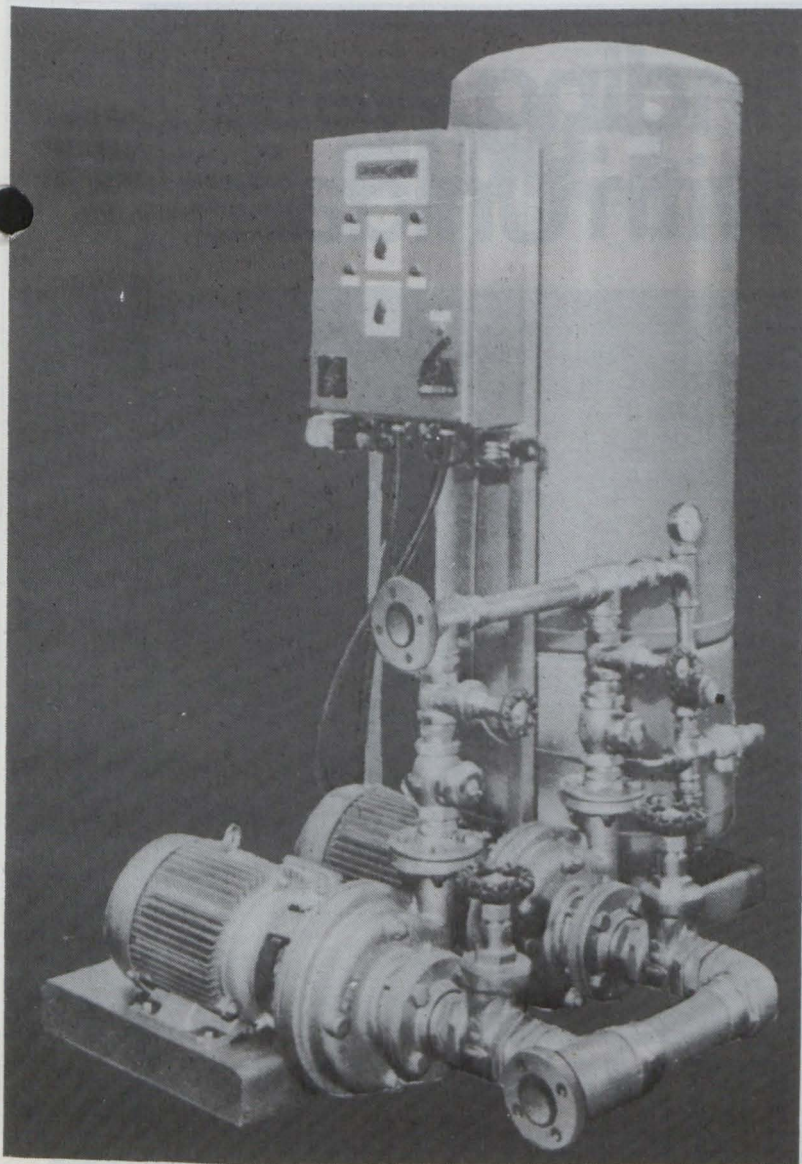
When low grade steam is handled the Crane CRS condensate recovery set is available to collect the condensate at atmospheric pressure and return it to the make-up water system.

Other packaged sets include dual circulating sets incorporating either K-range in-line heating pumps or S-range glandless circulating pumps, and constantly running twin sets with G-range unit construction pumps.

Continued on next page



One of the FHR fire hose reel pumping sets for fire protection systems from Pump Services.



Another of the PBS packaged pressure booster range of sets for cold water supply from Pump Services.

**Heiton McFerran—  
the main stockist  
and distributor of**

**Grundfos  
two-speed Super4**

The pump for small, medium and large domestic systems.

Contact Heiton McFerran at Tara House, Tara Street, Dublin 2. Tel: 772931 for further information. A technical leaflet on the domestic circulator by Grundfos is also available on request.

 **Heiton  
McFerran**

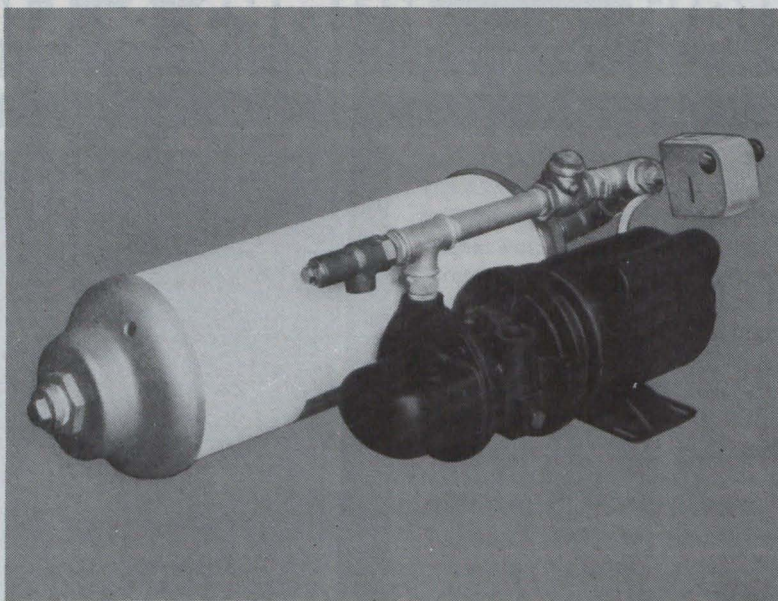


## PUMPS & CIRCULATORS

Continued from previous page

These packaged systems are supported by the comprehensive range of Crane heating and industrial pumps which include: C-range, automatic or manual free standing sump drainage pumps and the Sumpmatic submersible sump pump; G-range, end suction general service pumps, pedestal mounted, belt driven and compact belt driven and unit construction; H-range, vertical in-line high temperature heating and process pumps; J-range, large vertical in-line pumps for large scale heating installations; K-range, in-line heating pumps.

For more details of the Crane range of pumps contact Dermot Sheerin, Pump Services, Willbrook Road, Rathfarnham, (Tel: 903371).



*The Mono Automatic pressure water set.*

of pumping applications, domestic, dairy/agricultural and industrial and recently supplied a major metering pump order to the Dunlin off-shore field in the North Sea. Mono are also major suppliers of water-treatment pumps to local authority waterworks and their MPL metering pumps are capable of precise liquid dosing with a flow accuracy of up to 0.5%.

Within industry the name Mono has become a generic name for the helical rotor type of pump. High viscosity and non-flow products can be handled and industrial applications cover the pumping of diverse materials such as fruit pumps, diced apples, PVC plasticiser paste, latex, gypsum plaster slurries, molasses, tooth-pastes, soaps, greases, tar and paints.

The design of the pump means that there is proportionality between output capacity and speed and that there is full volumetric displacement per revolution. Heads developed are independent of speed. Mono pumps generate low flow velocities so that sensitive products can be handled without damage. Capacities are up to 33,000 gph at pressures of 130 psi, and performance figures above these can be achieved using Mono Group SSP rotary-lobe and MPL type pumps.

Materials of construction can be varied to suit specific applications

*Continued on next page*

capable of handling water and fluids of high viscosity such as pastes, slurries, animal feedstuffs and heavy sludges, including media with solids and abrasives in suspension.

Mono pioneered the helical rotor/stator pump which is of simple construction and easily serviced. The pumping element comprises one silently rotating component ie a stainless steel rotor within a resilient moulded rubber stator. The rotor/stator geometry is designed to smoothly transfer pockets of liquid and solids in suspension to provide a

quiet non-pulsating delivery and the pump is capable of high suction lift and is inherently self-priming.

Thousands of these units are in use throughout the country, servicing dwellings as shallow-well pumps. The Mono pumps is also ideal for the boosting of water mains pressure and Mono pressure-sets, are available comprising of a pump fitted with a pressure-vessel incorporating a pressure switch so that the unit is fully automatic, starting up to maintain pressure and cutting out when a predetermined setting is reached.

Mono Group service all types

## Mono

Mono Pumps Ltd, as manufacturers of shallow-well and deep-well pumps, have been involved with water-supply in Ireland for over 20 years and their range of domestic pumps is sold through a network of local stockists. As part of Mono Group Ltd, together with Metering Pumps Ltd and Stainless Steel Pumps Ltd, they are the world's largest manufacturers of positive displacement pumps which are

# If you've a job finding water get down to it with Unidare



First, find the right pump. Unidare have a whole new range of Aquadare pumps that go as deep as 300 feet and

draw up to 2,800 gallons per hour. However you're situated, Unidare can help you to all the water you need.

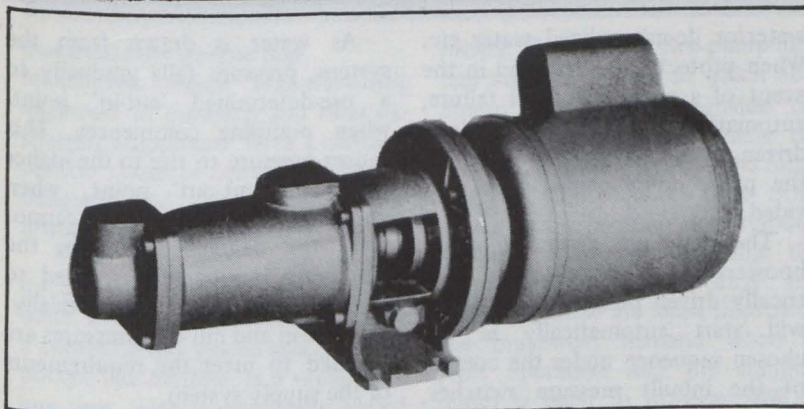
## 25 Years in Pumps

## UNIDARE makes life better

Finglas, Dublin 11. Tel. (01) 771801. Telex 5141



## PUMPS & CIRCULATORS



An example from the Mono M range of pumps.

Continued from previous page

and components can be selected to cope with aggressive or corrosive products so that virtually all acids, chemicals and effluents can be handled. Products can be pumped at ambient or elevated temperatures. The Mono pump has only one gland which can be arranged either on the suction or delivery side of the pump to suit the application.

A wide variety of mechanical seals can also be fitted for the pumping of hygienic or hazardous products. Mono pumps can be coupled to various drives such as electric, pneumatic, hydraulic, motors and diesel or petrol engines. Since running torques are low, motor sizes are minimal, an important factor in view of current energy costs.

Another major area for Mono

pumps in Ireland is in the pumping of farmyard effluent and slurries, where in many cases only one pump can cope with farmyard washdown, and also for the pumping of slurry directly on to land for use as fertiliser. In the dairy sector, Irish farmers are also familiar with the SSP stainless steel rotary-lobe pumps fitted to hundreds of bulk milk collection tankers.

The General Manager of Mono Group in Ireland is Kevin McLean, and local sales engineers are Owen Donnellan, who is based in Dublin and Tony Cusack based in Limerick.

Mono pumps and spares are available ex-stock from Dublin and there are also workshop facilities under the control of Frank O'Farrell to provide a pump repair and maintenance service. Advice on pump applications and problems is

available from Mono Group Pump Division, Dublin Industrial Estate, Glasnevin, Dublin 11, (Tel: 300744).

## UKA

Waste water pollutes. This problem concerns industry, governments and society. In many countries, the problem is being solved by installing UKA fully submersible pumps or dry well pumps. The UKA design was developed during many years of research, and experience in the handling of sewerage as well as sewer systems.

UKA provides more than 40 different submersible pumping systems and over 120 different dry well systems designed to meet particular requirements. UKA fully submersible pumps are both robust and dependable. Choking is practically impossible due to UKA's direct and constant flow design which permits free passage of even large solids.

They are also flexible. Although most frequently used for municipal or industrial wastes, they have proved themselves equally effective for rainwater drainage and a number of other applications.

UKA's standard pump construction consists of motor frame, pump

housing, impeller and wear-ring of close-grain cast iron. The impeller shaft and spacing collar are made of stainless steel. The heavily dimensioned ball bearings are sealed and lubricated for life.

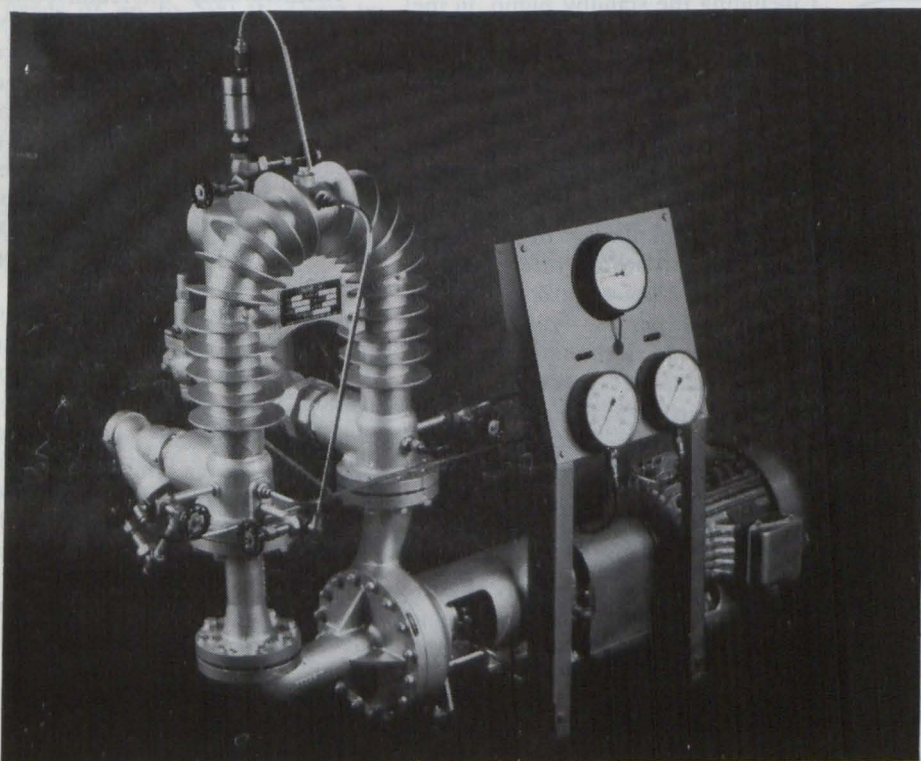
A double mechanical shaft seal running in an oil bath prevents any leakage between the pump and motor. The shaft seal to the motor side has faces of carbon/ni-resist. The shaft seal to the water side, the faces of which are of tungsten carbide, is fully released from the pump pressure, in order to reduce the wearing action of sand and similar grinding particles, present in the sewage water. Smaller UKA pumps have stainless steel housing and these are particularly suited for one-family-house installations and small residential areas.

When required, pumps can be custom designed and produced to meet exact specifications and requirements.

There are said to be 12 key points to every UKA pump — No 12 being general advantage of the UKA pump, when considering price, quality, capacity and dependability of as a whole. The others are: 1 Lifting frame supplied with 6 meters of galvanized lifting chain; 2 Motor cable, eight meters long 4-core flexible cable covered with an acid and oil resistant neoprene jacket; 3 Terminal box for connection of the power supply cable;

Continued on next page

# SAVE MONEY on your Steam Costs!



Speed up production  
Improve product quality  
Reduce maintenance  
Cut make-up water

## THE CRANE CBA SYSTEM

Many industries have proved it: CBA units can save between 10% and 20% of steam costs.

As a simple rule of thumb, 1% saving in fuel cost can be expected for each 11°F (5-6°C) increase in the temperature of the boiler feedwater.

### SPECIAL COMBINATION OF COMPONENTS

The CBA's specially designed system returns condensate with the highest possible heat content direct to the boiler or feedwater system and improves heat transfer rates. It eliminates flashed steam losses and ensures more uniform transfer of available latent heat. If you use steam, you can't afford to be without the crane condensate booster system.

CRANE

PUMP SERVICES

For more information contact:

PUMP SERVICES

Willbrook Rd., Rathfarnham, Dublin 14. Tel: 903371 Telex: 4805 17



## PUMPS & CIRCULATORS

Continued from previous page

4 Ball bearings, sealed and lubricated for lift. Free for at least 7000 working hours of three years maintenance; 5 Stator, supplied with standard winding of 3x380 volts or 415 volts, 50 Hz. The stator may be rewound to meet specific requirements; 6 Rotor, complete with stainless steel shaft; 7 Double mechanical shaft seal, running in an oil bath. The upper seal faces are carbon/nitresist. The lower seal faces are tungsten carbide; 8 Oil chamber, ensuring lubrication and cooling of the mechanical shaft seals; 9 Impeller of close grain cast iron. The single vane type has proved to be the most dependable in use for raw and unscreened sewage giving optimum of free passage for impurities; 10 Pump housing with replaceable wear-ring at the inlet made of close grain cast iron; and 11 Flange gasket and acid and oil resistant diaphragm which employs the pump's exit pressure to complete a self-adjusting firm connection to the pipe system.

Further details are available from Worthington Simpson Ltd, 6 Waterloo Road, Dublin 4, (Tel. 684779).

quantities according to demand, economically and from almost any practical source, ie direct from the supply main, from a break tank at ground level, from below ground storage, or, if necessary, from a bore hole.

Standard units are suitable for pumping drinking water/clean water or final sewage effluent. Alternative material specifications are available for specialised application, ie pumping salt/brackish

water/or de-mineralized water etc. When protection is required in the event of a mains electrical failure, automatic start packaged diesel driven alternator sets coupled to the pump units can also be provided.

The standard range of water boosters have one or more electrically driven pumps, all of which will start automatically in the chosen sequence under the control of the inbuilt pressure switches,

As water is drawn from the system, pressure falls gradually to a pre-determined 'cut-in' point, when pumping commences. This causes pressure to rise to the higher limit, or 'cut-out' point, when pumping ceases. If one pump cannot meet the demand for water the remaining pumps are arranged to come into operation automatically. The cut-in and cut-out pressures are selected to meet the requirements of the supply system.

In the Pneumatank system the absorption of air into the water is eliminated by the use of a rubber diaphragm separating the gas and water in the pressure vessel. This obviates the need for a compressor to make up air losses, thus reducing both first cost and maintenance requirements.

Although Pillinger Pneumatank booster sets are made in two standard types, many special configurations and specifications can be accommodated. For example, submersible or bore hole pump, remote mounted control gear, etc.

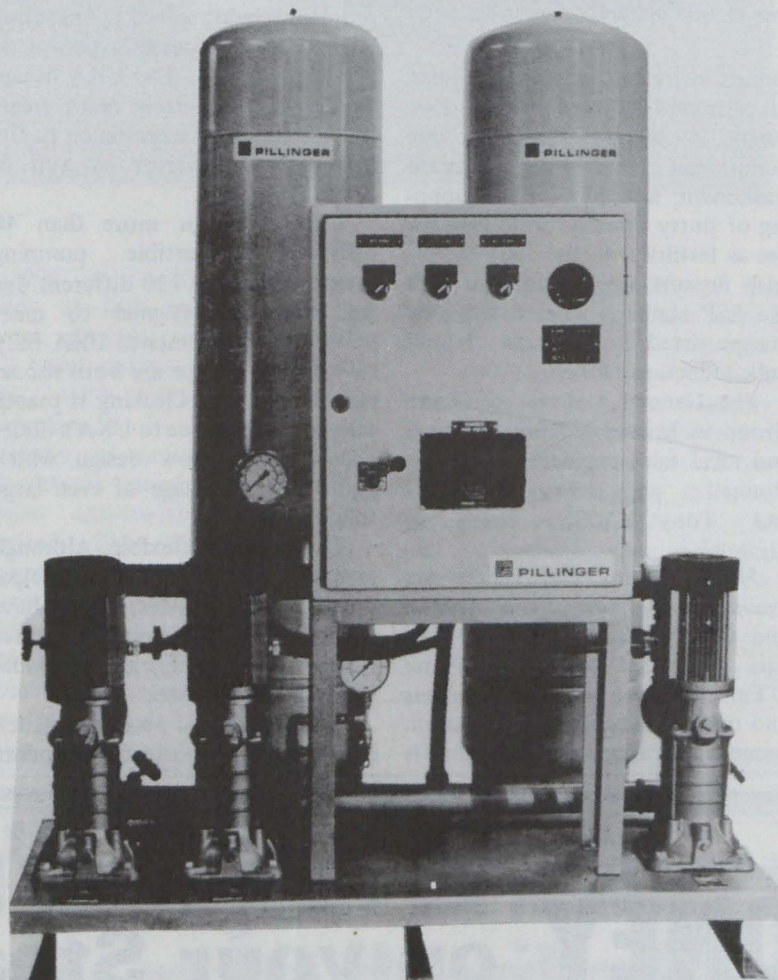
The set is built up on a fabricated steel base and comprises pumps, spill tank, pre-charged vessel, control cubicle, all necessary pipework and wiring completed in the works. High efficiency, multistage, centrifugal type directly coupled to TEFC induction motor. Casing in cast iron and stainless steel. Mechanical seal.

Mild steel cylindrical pre-charged pressure vessel, gas and water spaces separated by rubber diaphragm. Outside painted in hammer finish synthetic enamel. A Schrader type valve is fitted for adjustment of pre-charged pressure. Galvanised welded mild steel with dust cover, fitted with ball valve, drain valve and overflow opening.

The necessary interconnections are made using galvanised or copper pipework. Gunmetal valves are provided for isolating purposes and pump non return valves. All pipework is works assembled and arranged so that any pump or vessel can be removed for repair or maintenance without it being necessary to depressurise the heating system.

Controls and alarms are housed in a mild steel cubicle containing motor starters with overload protection, fuses, pressure switches for pump and spill valve control and alarm gear. The control switches and warning lights are mounted in the hinged front doors, which incorporate an interlocked mains isolator.

Further details are available from Pillinger of Ireland Ltd, 20 Sycamore Street, Dublin 2, (Tel: 777007).



The Pillinger pneumatic pre-charged booster Type 1, for variable flow cold water supplies.

## Pillinger

Pillinger automatic water pumping equipment is designed to overcome most water supply problems, whether variable or part variable demand, constant and/or instant pressure. Within the range there is a pumping set which will enable water to be supplied direct to appliances, hoses, high level or remote storage systems, in varying

# MONO

**Industrial Pumps handle effluent, slurries and high viscosity materials, including liquids containing solids and abrasives.**

**Domestic pressure sets — boost water mains pressure to high rise buildings and provide water supply from shallow wells to rural dwellings.**

### MONO PUMPS

Helical Rotor Pumps for Visonous products:  
Pressure-Sets for Domestic Water Supply:  
Slurry Pumps for Farm Effluent Sprinkling:

### S.S.P. PUMPS:

Stainless Steel Rotary Lobe pumps for Dairy and Hygenic Applications.

### METERING PUMPS:

MPL Pumps — Precise Dosing 1% Accuracy  
Water Treatment Boiler Feed, Chemical Duties

## MONO GROUP-Pump Division

DUBLIN INDUSTRIAL ESTATE,

10, WILSON ROAD, DUBLIN 11

Telephone: 300744. Telex: 4168

including the standby pump, in the event of excessive demand or failure of one of the duty pumps. Pillinger water boosters are divided into basic groups, all of which are fully automatic in operation and are supplied complete in every respect.

The standard range of pneumatic pre-charged boosters offer 2, 3 or 4 direct coupled vertical multistage centrifugal pumps mounted on a zinc plated steel baseplate with control panel and pipework.

Although the pre-charged Pneumatank vessel of the Type 1 Unit stands separately, the interconnecting pipework is included. Installation requires standing the Unit on a level floor and connecting the water and electricity supply. Again, with the Type 1 there is some additional interconnection of pump and vessel.

The Pneumatank booster units utilise the well-known auto-pneumatic pressure controlled pumping system. This system, which was originally developed and patented by Pillingers, uses the principle of balancing the required system water pressure against air in a pressure vessel, thus providing storage capacity under pressure.

## Holden & Brooke

Holden and Brooke Ltd, the  
Continued on next page



# PUMPS & CIRCULATORS

Continued from previous page

Manchester based manufacturing engineers of pumping and Heat exchanger equipment, have a comprehensive range of centrifugal pumps designed and developed for the heating and ventilating markets.

From their wide range of products, the Selfline and Jaybloc units, offer the contractor and user a competitively priced and compact pump. The Selfline, is a vertical in-line unit, with mechanically sealed glands and caters for capacities up to 52 litres/sec (675 gpm) and heads to 145 KN/sq M (48 feet).

The Jaybloc range of end suction, unit construction pumps offers a choice in materials of construction and gland arrangements and is capable of capacities ranging to 190 litres/sec (2500 gpm) and heads up to 985 KN/sq M (330 feet).

Further details of the Jaybloc and Selfline units and other products from the Holden and Brooke range, can be obtained from their agents:— Pillinger of Ireland Ltd, 20 Sycamore Street, Dublin, (Tel: 777007) and John Hind and Sons Ltd, Prince Regent Road, Belfast. (Tel: Belfast 59264).

## Pullen Pumps

The 'Hydro-pak' range of pressurised water supply units, manufactured by Pullen Pumps Ltd, has been radically extended with the addition of both intermediate and larger models with increased capacities of up to 1000 gal/min and increased heads of up to 500 ft. These improvements have been achieved by the integration into the overall package of both Pullen 'HV' (high head) and 'KH' (high output) pumps.

The six further units have been added to the 'Hydro-pak' range which is now available in a total of 12 sizes.

The Hydro-pak is packaged in concept and designed to provide a completely pressurised water supply. It comprises either two or three close coupled centrifugal pumps, interconnecting pipework, together with valves, membrane tank and control panel. Smaller and lighter than conventional pressure sets, the design techniques employed eliminate the need for an air compressor and its associated controls, thus reducing both capital and running costs.

The Hydro-pak is similar in operation to conventional packaged pressure sets in which an air cushion is supplied by a compressor that replaces air lost by absorption into has overcome the problem of air-locking, while automatic re-commissioning is an additional feature.

The first is a two pump duty and standby system in which both pumps are sized to provide the maximum demand and where the function of each pump can be interchanged. The second is a three pump duty, back-up and standby system which also contains the same flexibility. The duty and back-up pumps are sized to provide the maximum demand when in joint operation and the standby pump is sized to provide 50% of this.

Further details are available from MCW, 9 Wynnefield Road,

Rathmines, Dublin 6, (Tel: 976729).

## Euramo

Euro Pumps Ltd Cork, the sole agents for Euramo Pumps in the Republic of Ireland, will be two years in existence at the end of March.

The Pumps, which were originally introduced to the Irish Market

in 1973, enjoy a very high reputation both for performance and reliability, this is borne out by the fact that 65% of the domestic pump market is now maintained by Euramo Pumps.

The reasons for this success are twofold (1) performance of the pump and (2) their unique delivery service which is operational throughout the twenty-six counties. Each customer is visited at least once every four weeks when requirements are delivered and any problems dealt with.

Continued on next page

# Go Grundfos -Go Two Speed

Grundfos cover your duty ranges with the finest possible pumps. Take the two-speed Super 4. No need now to stock two or three different domestic pumps—the two-speed Super 4, with its simple speed selection covers a duty range that no other pump can offer.

Then there are our light Industrial Circulators. A great range of variable head pumps—and like all Grundfos models, available off the shelf.

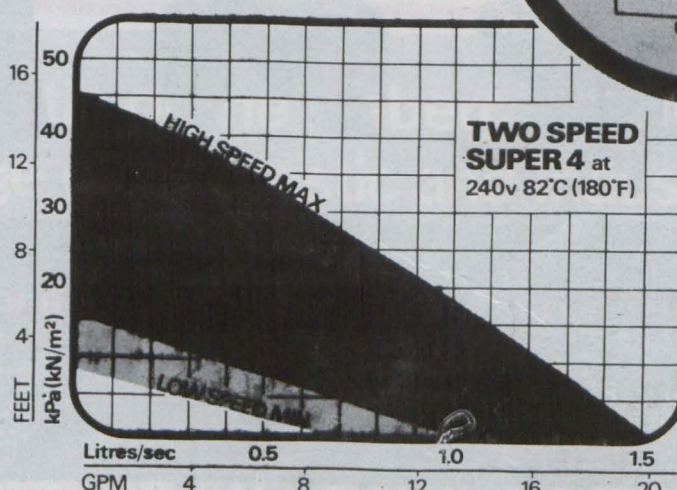
## GRUNDFOS

Head Office, Works & Southern Area

Sales Office: Grovebury Road,  
Leighton Buzzard, Beds, LU7 8TL.  
Tel: Leighton Buzzard 4876. Telex: 825544

Northern Area Sales Office:

Gawsworth Court, Risley Road,  
Risley, Warrington, Cheshire,  
Tel: Padgate (0925) 813300



### DISTRIBUTORS

Heiton Mc Ferran  
Tara House, Tara Street,  
Co. Dublin. Eire.

H.R. Holfeld Ltd.  
Stillorgan,  
Co. Dublin. Eire.

# -Go Grundfos today!



## PUMPS & CIRCULATORS

Continued from previous page

Comprehensive stocks of the Euramo industrial range are held in Cork and single and twin units up to 5" are readily available from their stores.

Finally, Euramo Pumps are very competitively priced and no price increase is envisaged in the immediate future.

Further information is available from Euro Pumps Ltd, Cooleen, Laburnum Lawn, Cork, (Tel: 021 41388).



*Euro Pumps' unique delivery service throughout the 26 counties visits each customer once every four weeks.*

## Ingersoll Rand

Type MC (metric coupled) pumps are cradle mounted with flexible coupling and the pumps and driver are mounted on a common base-plate.

Back pullout design allows the pump to be completely inspected without disturbing the pipe-work, enabling ease of service to the casing, impeller and stuffing box. Precision machined fits assured positive alignment of shaft with stuffing box cover and pump casing.

The balanced closed impeller is designed for high efficiency and low noise level. It is dynamically

balanced and smooth vibration-free operation and hydraulically balanced to reduce stuffing box pressure and minimise thrust loads on the bearings. The impeller is keyed to the shaft and secured with a lock nut, preventing the impeller from becoming loose if rotation is reversed.

Cast in mounting feet puts the support under the centre of the casing, transferring pipe loads directly to the foundation. This design provides maximum rigidity to prevent distortion and mis-

alignment.

Being precision ground throughout provides rugged support and low deflection at the impeller and the stuffing box. Unique design on Type M units allows the use of a standard metric motor.

Type M C deep stuffing box accommodates packing as the standard design. Four rings of packing and a lantern ring are contained with a solid one piece gland. Optional stuffing box arrangements on the Type MC are packed box with external flushing

and mechanical seal. A mechanical seal is standard construction on the Type M.

Heavy duty ball bearings are properly pre-greased for the bearing life while standard flange mounted metric motors for BS 3979 (IEC 72) are used for the Type M.

Further information is available from Consolidated Pumps Ltd, Knockmeenagh Road, Newlands Cross, Clondalkin, Co Dublin, (Tel: 593471).

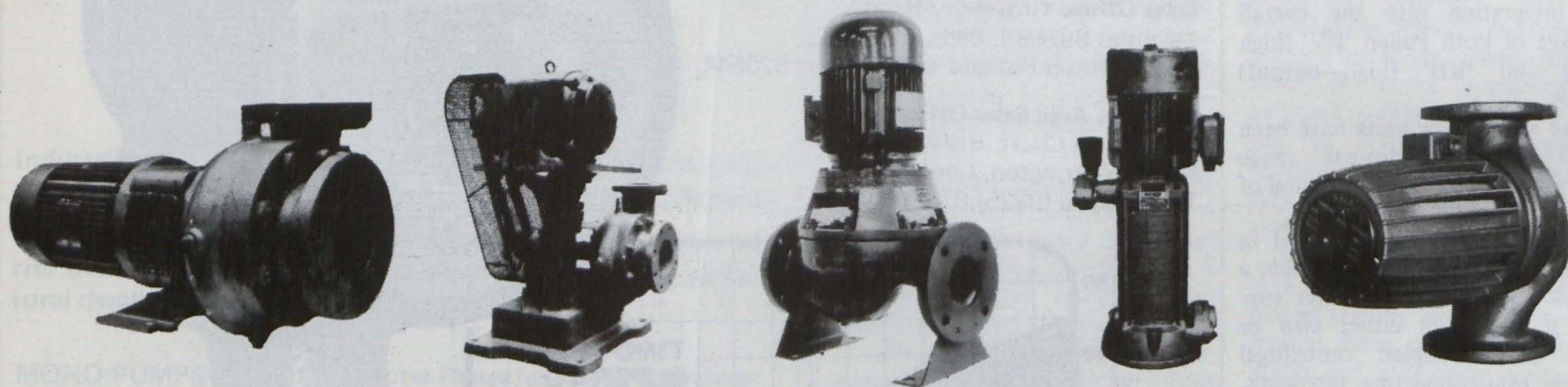
## Grundfos

There are eight models in the new Grundfos UPS 40 Multispeed commercial circulator range. Each pump incorporates a number of new features to ensure that they are sufficiently flexible in operation to suit the most advanced and efficient heating systems. At the same time Grundfos' designers have ensured that the circulators consume as little power as possible.

Other special features, now standard on all Grundfos circulators, such as stainless steel rotor cans and impellers, together with ceramic shafts and bearings, are common to all pumps in the multi-speed range. Every pump is tested

Continued on page 22

## Holden and Brooke Supply Pumps and Experience



We supply an extensive range of pumps which have been developed from our wide experience of the requirements of the heating and building services industries. Please send for technical literature.



### Holden and Brooke Limited

Sirius Works, Manchester M12 5JL  
Telephone: 061 273 8262 Telex 667318

Agents in Eire:

### Pillinger of Ireland Ltd

20 Sycamore Street, Dublin 2. Branch 35 Sth. Terrace, Cork.  
Tel: Cork 23955.

Agents in Northern Ireland:

### John Hind and Sons Ltd

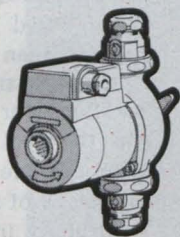
Prince Regent Road, Belfast, BT5 6RS  
Tel: 0232 50221.



# Euroamo-Pumps

## MX130A MX180A

Glandless variable output domestic circulators. Heads to 4.2 m (14 ft). Capacities to 3.5 m<sup>3</sup>/hr (13 gpm).



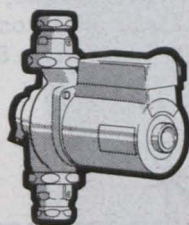
## 1030-1040

Glandless variable output circulators for medium size heating systems. Heads to 7.5 m (25 ft). Capacities to 10 m<sup>3</sup>/hr (37 gpm).



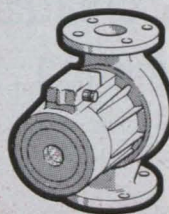
## 300-OC

Bronze variable output glandless circulator for hot water services. Heads to 3 m (10 ft). Capacities to 2.5 m<sup>3</sup>/hr (9 gpm).



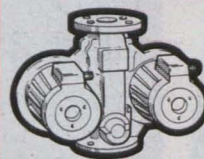
## C.1000

In line glandless variable output circulators. Heads to 20 m (66 ft). Capacities to 100 m<sup>3</sup>/hr (366 gpm).



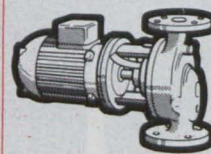
## C.2000

In line glandless variable output twin circulators. Heads to 20 m (66 ft). Capacities to 120 m<sup>3</sup>/hr (440 gpm).



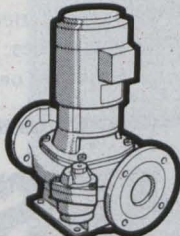
## GIM-NEC-GET

Close coupled glanded in line pumps. Heads to 20 m (66 ft). Capacities to 65 m<sup>3</sup>/hr (248 gpm).



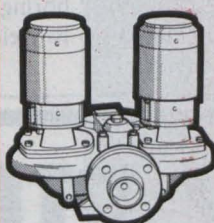
## LS/LR.1000

Vertical in line variable output glanded pumps. Heads to 30 m (99 ft). Capacities to 350 m<sup>3</sup>/hr (1,260 gpm).



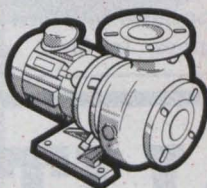
## JS/JR.2000

Vertical in line variable output glanded twin pumps. Heads to 30 m (99 ft). Capacities to 700 m<sup>3</sup>/hr (2,560 gpm).



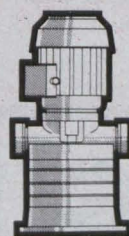
## PM-GM

Close coupled centrifugal for general pumping duties. Heads to 40 m (135 ft). Capacities to 200 m<sup>3</sup>/hr (734 gpm).



## MA.2000

Vertical multistage centrifugal self-priming pumps. Heads to 60 m (197 ft). Capacities to 4 m<sup>3</sup>/hr (15 gpm).



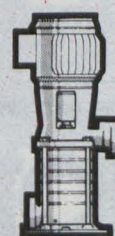
## ME.2000

Vertical multistage centrifugal pumps. Heads to 100 m (330 ft). Capacities to 8 m<sup>3</sup>/hr (30 gpm).



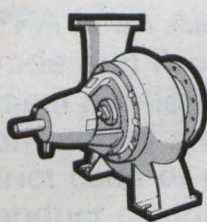
## MV.2000

Vertical multistage centrifugal pumps. Heads to 270 m (890 ft). Capacities to 22 m<sup>3</sup>/hr (80 gpm).



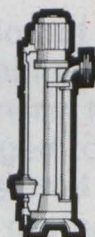
## NF E 44111

Standardised centrifugal pumps to DIN 24255. Heads to 90 m (295 ft). Capacities to 1,800 m<sup>3</sup>/hr (6,600 gpm).



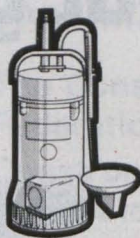
## GV.27-GV.50

Vertical free standing sump pumps. Heads to 35 m (115 ft). Capacities to 30 m<sup>3</sup>/hr (110 gpm).



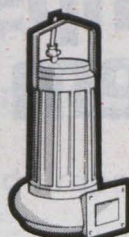
## U.6100

Submersible sump pumps, manual and automatic operation. Heads to 35 m (115 ft). Capacities to 30 m<sup>3</sup>/hr (110 gpm).



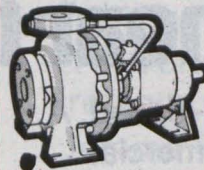
## U.6200

Submersible pump, manual or automatic operation. Heads to 40 m (132 ft). Capacities to 200 m<sup>3</sup>/hr (732 gpm).



## NF E 44121 NC-NI-NO

Standardised centrifugal pumps for chemicals and other liquids. To DIN 24256 & ISO 2858. Heads to 150 m (495 ft). Capacities to 1,600 m<sup>3</sup>/hr (5,850 gpm).



## PV.1000

Direct coupled vertical centrifugal units for industrial applications. Heads to 140 m (462 ft). Capacities to 800 m<sup>3</sup>/hr (2,930 gpm).



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## PUMPS & CIRCULATORS

Continued from page 20

under simulated working conditions at 90 degrees centigrade, and all models carry a twelve months guarantee.

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Further information is available from HR Holfeld (Hydraulics) Ltd, 2-4 Merville Road, Stillorgan, (Tel: 887361) or Heiton McFerran Ltd, Tara House, Tara Street, Dublin 1, (Tel: 772931).



### Unidare

Unidare Limited designed and manufactured its first pumps during 1953 and used the brand name 'Aquadare' a name which is still associated with their present range of pumps. In those early days only

one size of pump was manufactured, a ½ h.p. centrifugal jet model. This was available as a shallow-well or deep-well automatic pressure water system with a maximum operating depth of 80 ft. The system consisted of an integral pump and motor unit mounted on top of a 32-gallon horizontal galvanised pressure tank with an air volume control arrangement. It was completely automatic in operation and was used extensively by the farming community for agricultural and domestic use.

In order to cater for the individual who required water for domestic use only, or on a small farm, Unidare designed and manufactured in 1957 a ¼ h.p. centrifugal jet pump. This was similar to the ½ h.p. in design. As a deep-well system it was suitable for wells down to 50 ft. As the majority of wells bored during those days were less than 80 ft. deep this 'Aquadare' range of pumps was suitable for requirements. With the rural community becoming more aware of the importance and necessity of a piped water supply, particularly in farming areas, installations more than tripled by 1960. The demand for bigger pumps with increased outputs and operating pressures grew and this trend led to the boring of deeper wells necessary to yield the larger capacities.

Continued on page 24

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## PUMPS & CIRCULATORS

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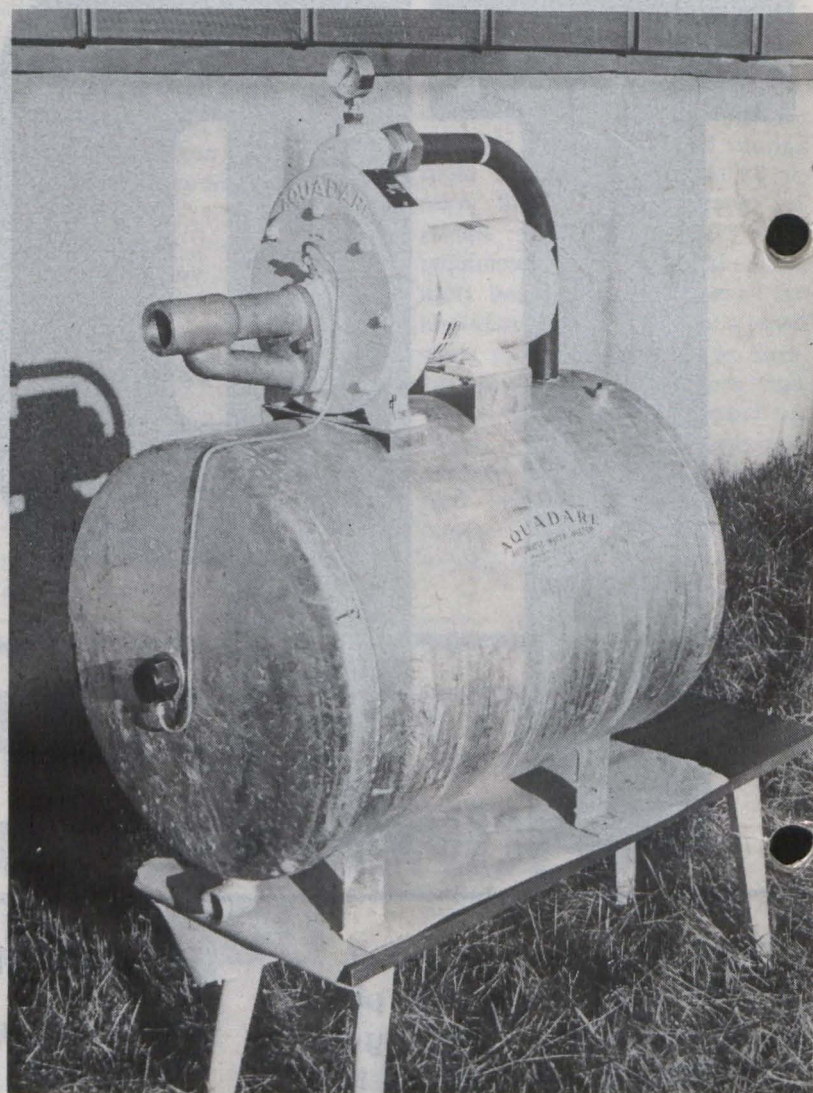
To meet this demand, in 1962, Unidare designed and manufactured three new sizes of pump, i.e. a 3/4, 1 and 1 1/2 h.p. The 3/4 h.p. pump and motor unit was integral, while the 1 and 1 1/2 h.p. pump and motor unit were separate and mounted on a common baseplate with V-belt drive. These new pumps extended Unidare's maximum operating depth down to 160 ft with larger capacities available, thereby catering for the larger farming communities, horticulturalists, schools, hotels etc. All pumps were manufactured under the brand name 'Aquadare' which was synonymous with quality and

to 300 ft with operating pressures up to 100 p.s.i. Unidare also introduced at this time their range of Aquacell diaphragm pressure tanks to the Irish market and these tanks were supplied with the complete range of pumps as automatic pressure systems.

Unidare presently manufacture a range of pumps in sizes 1/4, 1/2, 3/4, 1, 1 1/2, 2 and 3 h.p. as follows:

(1) Centrifugal pumps. (2) Shallow-well centrifugal jet pumps and automatic pressure water systems. (3) Deep-well centrifugal jet pumps and automatic-pressure water systems.

Capacities available range from 100-2,500 gallons per hour at



Above original 1/2 h.p. system in 1953.

reliability. In 1972 Unidare manufactured and introduced to the Irish and overseas markets the 'Supercell' diaphragm pressure tank which was unique and offered the most advanced technical and economical water-pressure systems available at that time. This tank, which is still available, incorporates a patented Butyl rubber diaphragm with a sealed-in compressed-air cushion and eliminates the need for an air charging device.

By 1970 pump installation had more than tripled and the trend was again for larger pumps which would go deeper and deliver more water. In 1974 Unidare redesigned their 1/2, 3/4 and 1 h.p. improving their outputs and maximum depth ranges by some 20-30 ft. To meet the demands for larger pumps they in 1976, redesigned their 1 1/2 h.p. unit, designed and manufactured a 2 and 3 h.p. pump. The 3 h.p. extended their depth range down

operating pressures from 15-30 p.s.i. to 80-100 p.s.i.

Unidare are also now introducing to the market their new Mini 78, replacing their Super Mini which went out of production during the latter-half of last year.

Further information can be obtained from "Unidare" Finglas, Dublin 11, Tel: (01) 771801. Telex: 5141.

While the postal strike which has been affecting the supply of material to IHVN's office has now being settled, the effects are still being felt and we are not yet receiving normal deliveries. Consequently, certain items destined for inclusion in this "pumps and circulators" review, including the introductory article, have failed to reach us. However, these items will be published in a forthcoming issue.